

Ala Lys Leu Gly Leu Ser Pro Gly Glu Pro Ser Pro Val Leu Gly Thr
 50 55 60
 Val Glu Ala Gly Pro Pro Asp Pro Asp Glu Ser Ala Val Leu Leu Glu
 65 70 75 80
 Ala Ile Gly Pro Val His Gln Asn Arg Phe Ile Arg Gln Glu Arg Gln
 85 90 95
 Gln Gln Gln Gln Gln Gln Gln Arg Ser Glu Glu Leu Leu Ala Glu Arg
 100 105 110
 Lys Pro Gly Pro Leu Glu Ala Arg Glu Arg Arg Pro Ser Pro Gly Glu
 115 120 125
 Met Arg Asp Gln Ser Pro Lys Gly Arg Glu Ser Arg Glu Glu Arg Leu
 130 135 140
 Ser Pro Arg Glu Thr Arg Glu Arg Arg Leu Gly Ile Gly Gly Ala Gln
 145 150 155 160
 Glu Leu Ser Leu Arg Pro Leu Glu Ala Arg Asp Trp Arg Gln Ser Pro
 165 170 175
 Gly Glu Val Gly Asp Arg Ser Ser Arg Leu Ser Glu Ala Trp Lys Trp
 180 185 190
 Arg Leu Ser Pro Gly Glu Thr Pro Glu Arg Ser Leu Arg Leu Ala Glu
 195 200 205
 Ser Arg Glu Gln Ser Pro Arg Arg Lys Glu Val Glu Ser Arg Leu Ser
 210 215 220
 Pro Gly Glu Ser Ala Tyr Gln Lys Leu Gly Leu Thr Glu Ala His Lys
 225 230 235 240
 Trp Arg Pro Asp Ser Arg Glu Ser Gln Glu Gln Ser Leu Val Gln Leu
 245 250 255
 Glu Ala Thr Glu Trp Arg Leu Arg Ser Gly Glu Glu Arg Gln Asp Tyr
 260 265 270

 Ser Glu Glu Cys Gly Arg Lys Glu Glu Trp Pro Val Pro Gly Val Ala
 275 280 285
 Pro Lys Glu Thr Ala Glu Leu Ser Glu Thr Leu Thr Arg Glu Ala Gln
 290 295 300
 Gly Asn Ser Ser Ala Gly Val Glu Ala Ala Glu Gln Arg Pro Val Glu
 305 310 315 320
 Asp Gly Glu Arg Gly Met Lys Pro Thr Glu Gly Trp Lys Trp Thr Leu

| | | |
|-------------------------------------|---------------------------------|-----|
| 325 | 330 | 335 |
| Asn Ser Gly Lys Ala Arg Glu Trp Thr | Pro Arg Asp Ile Glu Ala Gln | |
| 340 | 345 | 350 |
| Thr Gln Lys Pro Glu Pro Pro Glu Ser | Ala Glu Lys Leu Leu Glu Ser | |
| 355 | 360 | 365 |
| Pro Gly Val Glu Ala Gly Glu Gly Glu | Ala Glu Lys Glu Glu Ala Gly | |
| 370 | 375 | 380 |
| Ala Gln Gly Arg Pro Leu Arg Ala Leu | Gln Asn Cys Cys Ser Val Pro | |
| 385 | 390 | 395 |
| Ser Pro Leu Pro Pro Glu Asp Ala Gly | Thr Gly Gly Leu Arg Gln Gln | |
| 405 | 410 | 415 |
| Glu Glu Glu Ala Val Glu Leu Gln Pro | Pro Pro Pro Pro Ala Pro Leu Ser | |
| 420 | 425 | 430 |
| Pro Pro Pro Pro Ala Pro Thr Ala Pro | Gln Pro Pro Gly Asp Pro Leu | |
| 435 | 440 | 445 |
| Met Ser Arg Leu Phe Tyr Gly Val Lys | Ala Gly Pro Gly Val Gly Ala | |
| 450 | 455 | 460 |
| Pro Arg Arg Ser Gly His Thr Phe Thr | Val Asn Pro Arg Arg Ser Val | |
| 465 | 470 | 475 |
| Pro Pro Ala Thr Pro Ala Thr Pro Thr | Ser Pro Ala Thr Val Asp Ala | |
| 485 | 490 | 495 |
| Ala Val Pro Gly Ala Gly Lys Lys Arg | Tyr Pro Thr Ala Glu Glu Ile | |
| 500 | 505 | 510 |
| Leu Val Leu Gly Gly Tyr Leu Arg Leu | Ser Arg Ser Cys Leu Ala Lys | |
| 515 | 520 | 525 |
| Gly Ser Pro Glu Arg His His Lys Gln | Leu Lys Ile Ser Phe Ser Glu | |
| 530 | 535 | 540 |
| Thr Ala Leu Glu Thr Thr Tyr Gln Tyr | Pro Ser Glu Ser Ser Val Leu | |
| 545 | 550 | 555 |
| Glu Glu Leu Gly Pro Glu Pro Glu Val | Pro Ser Ala Pro Asn Pro Pro | |
| 565 | 570 | 575 |
| Ala Ala Gln Pro Asp Asp Glu Glu Asp | Glu Glu Glu Leu Leu Leu Leu | |
| 580 | 585 | 590 |
| Gln Pro Glu Leu Gln Gly Gly Leu Arg | Thr Lys Ala Leu Ile Val Asp | |
| 595 | 600 | 605 |
| Glu Ser Cys Arg Arg | | |

610

<210> 2670

<211> 329

<212> PRT

<213> Homo sapiens

<400> 2670

```

Met Leu Pro Leu Glu Pro Tyr Leu Thr Gln Thr Ser Ala Val Pro Gln
  1             5             10             15
Met Ser His Phe Met Cys His Ser Pro Thr His Lys Pro Gln Gly Leu
          20             25             30
Leu Pro Trp Ala Pro Phe His Gln Ala Ser Val Ser Leu Tyr Pro Ile
          35             40             45
Ser Pro Trp Pro Ser Glu Ser Val Cys Pro Pro Thr Cys Pro Gly Gly
          50             55             60
Ala Ser Cys Trp Phe Pro Ala Gly Asn Ala Trp Asp Arg Val Glu Leu
          65             70             75             80
Gly Phe Leu Gly Phe Gly Ala Gly Gly Val Ser Ile Ala Val Pro Gly
          85             90             95
Phe Pro Leu Ser Cys Gly Gln Gly Cys Cys Ala Gly Gly Trp Leu Gly
          100            105            110
His Gly Ala Arg Phe Pro Ala Lys Leu Arg Ala Phe Pro Gln Val Ile
          115            120            125
Arg Arg Gly Trp Leu Thr Ile Asn Asn Ile Ser Leu Met Lys Gly Gly
          130            135            140
Ser Lys Glu Tyr Trp Phe Val Leu Thr Ala Glu Ser Leu Ser Trp Tyr
          145            150            155            160
Lys Asp Glu Glu Glu Lys Glu Lys Lys Tyr Met Leu Pro Leu Asp Asn
          165            170            175
Leu Lys Ile Arg Asp Val Glu Lys Gly Phe Met Ser Asn Lys His Val
          180            185            190
Phe Ala Ile Phe Asn Thr Glu Gln Arg Asn Val Tyr Lys Asp Leu Arg
          195            200            205
Gln Ile Glu Leu Ala Cys Asp Ser Gln Glu Asp Val Asp Ser Trp Lys

```

210 215 220
 Ala Ser Phe Leu Arg Ala Gly Val Tyr Pro Glu Lys Asp Gln Val Arg
 225 230 235 240
 Ser Arg Pro Ala Gln Pro Gly Pro Glu Pro Pro Pro Gly Arg Gly Ser
 245 250 255
 Arg Ala Gly Phe Pro Gln Asp Arg Ser Phe Ser Gly His Val Ser Gln
 260 265 270
 Glu Ser Leu Lys Ser Cys Ser Arg Cys Pro Leu Glu Gln Ala Lys Glu
 275 280 285
 Lys Leu Gly Val Leu Cys His Gln Gly Pro Glu Ser Ser Leu Thr Glu
 290 295 300
 Ala Ser Asp Arg Gly Thr Gln Gly Met Gly Ser His Leu Leu Cys Ser
 305 310 315 320
 Leu Leu Phe Ser Pro Ser Ile Leu Arg
 325

<210> 2671

<211> 119

<212> PRT

<213> Homo sapiens

<400> 2671

Met Val Phe His Tyr Ile Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser
 1 5 10 15
 Ser Asp Leu Pro Ala Leu Ala Ser Arg Asn Ala Gly Val Thr Gly Met
 20 25 30
 Ser Tyr His Ala Arg Pro Gln Asn Pro Gly Thr Ser Ala Gly Ala Arg
 35 40 45
 Gly Gln Asn Arg Leu Leu Tyr Trp Asp Cys Leu Ala Gly Arg Thr Asp
 50 55 60
 Ala Gln Gly Gly Pro Met Arg Thr Gln Pro Pro Gly Lys Met Val Glu
 65 70 75 80
 Gly Lys Ile Leu Pro Thr Ser Ser Asp Ser Leu Ser Gln Leu His Trp
 85 90 95
 Ser Ile Ile Ser Phe Leu Phe Leu Lys Ser Val Ser Leu Val Ser Val

100 105 110
 Pro Gly Lys Trp Thr Gln Phe
 115

<210> 2672

<211> 155

<212> PRT

<213> Homo sapiens

<400> 2672

Met Ala Gly Cys Val His Leu Leu Ala Met Val Ile Leu Ser Ser Gly
 1 5 10 15
 Glu Phe Arg Gly Val Val Gly Pro Gly Asp Lys Glu Gly Arg Lys Asp
 20 25 30
 Gly Arg Ser Leu Asp Thr Val Thr Ala Val Trp Phe Leu Ser Ser Val
 35 40 45
 Tyr Trp Asp Tyr Ala Leu Val Val Pro Phe Ser Gln Val Val Cys Ile
 50 55 60
 His Cys His Gln Gln Ser Lys Pro Ala Leu Ser Ser Ala Arg Val Gly
 65 70 75 80
 Arg Glu Arg Leu Pro Ser Ala Ser Cys Ala Leu Cys Val Gly Pro Val
 85 90 95
 Arg Leu Leu Val Leu Leu Pro Ser Leu Leu Met Gly Leu Pro Gly His
 100 105 110
 Ala Val Ala Gln Pro Ser Ala Ser Tyr Pro Ala Trp Gly His Trp Pro
 115 120 125
 Ala Gly Cys Asp Ser Arg Arg Glu Gly Leu Ser Arg Thr Leu His Val
 130 135 140
 His Pro Gln Arg Ala Val Ala Arg Leu Cys Trp
 145 150 155

<210> 2673

<211> 127

<212> PRT

<213> Homo sapiens

<400> 2673

```

Met Ala Gly Pro Ser Pro Leu Trp Ala Leu Leu Ser Pro Ala Leu Pro
 1              5              10              15
Cys Phe Ser Pro Ser Tyr Leu Arg Gly Cys Thr Leu Gln Pro Pro Ile
          20              25              30
Gly Ser Leu Pro Pro Pro Thr Val Pro Ser Ile Thr Pro Cys Pro Gln
          35              40              45
Gly Gly Ser Phe Pro Ser Pro Gly Ser Arg Ala Cys Leu Arg Leu Arg
          50              55              60
Asp Ser Leu Pro Leu Asp Glu Gly Val Leu Gly Phe Pro Ser Cys Phe
65              70              75              80
Leu Leu Ser Trp Ala Thr Pro Ser His Pro Gly Val Gly Glu Glu Gln
          85              90              95
Gly Val Gly Ala His Ser Phe Pro Leu Leu Leu Pro Glu Leu Val Cys
          100             105             110
Thr Ala Leu Val Cys Gly Ala Arg Met Cys Leu Ser Pro Glu Ser
          115             120             125

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<210> 2674

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2674

```

Met His Gly Ala Leu Phe Arg Leu His Gly Gln Ala Gly His Arg Gln
 1              5              10              15
Arg Arg Pro Pro Ala Leu Thr Cys Leu Cys Gly Leu Thr Arg Glu Gly
          20              25              30
Ala Asp Arg Val Leu Ser Ala Glu Val Lys Ala Leu His Glu Ala Ile
          35              40              45
Leu Gly Ala Thr Glu Gln His Val Gly Phe Gly Gly Val Glu Ala Asp
          50              55              60
Phe Val Tyr Arg Ala Leu Val Phe Cys Glu Gln Leu Val Leu Leu Val

```

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|
| 65 | | | | | | 70 | | | | | | 75 | | | | | | 80 |
| Ala | Gly | Trp | Pro | Ala | Gln | Val | Pro | Arg | Asp | His | His | Ala | Ile | Gly | Gly | | | |
| | | | | | 85 | | | | | | 90 | | | | | | 95 | |
| Cys | Cys | Gly | Gln | Gln | Val | Leu | Ile | His | Leu | Val | Pro | Asp | His | Val | Ser | | | |
| | | | | | 100 | | | | | | 105 | | | | | | 110 | |
| Thr | Ala | Gln | Val | Lys | Arg | Arg | Leu | Ala | Pro | His | Thr | Gln | Val | Gln | Leu | | | |
| | | | | | 115 | | | | | | 120 | | | | | | 125 | |
| Phe | His | Glu | Leu | Phe | Leu | Leu | Asp | Gly | Ile | Asp | Leu | Glu | Asp | Ala | Thr | | | |
| | | | | | 130 | | | | | | 135 | | | | | | 140 | |
| Ala | Cys | His | Asp | His | Leu | Gly | Cys | Val | Ala | Ala | His | Thr | Asp | Gly | Ile | | | |
| 145 | | | | | | 150 | | | | | | 155 | | | | | | 160 |
| Gly | Gly | Ser | Ile | Gln | Val | Ala | Val | His | Gly | Ala | Ala | Cys | Gln | His | Ala | | | |
| | | | | | 165 | | | | | | 170 | | | | | | 175 | |
| Ala | Thr | Gln | Gly | Cys | Gly | His | Thr | Gly | His | Leu | Leu | His | Gly | Cys | Thr | | | |
| | | | | | 180 | | | | | | 185 | | | | | | 190 | |
| Gly | Asp | Glu | Val | Arg | Gly | Gln | Glu | Val | Ser | Glu | Val | Gly | Trp | Pro | Gly | | | |
| | | | | | 195 | | | | | | 200 | | | | | | 205 | |
| Gln | Pro | Gly | Trp | Val | Ile | Ser | Ser | Asp | Leu | Pro | Pro | Arg | Leu | Gly | Pro | | | |
| | | | | | 210 | | | | | | 215 | | | | | | 220 | |
| Gln | Asn | Cys | Leu | Val | Pro | Gly | Trp | Ser | Val | Leu | Val | Ser | Gln | Ser | Arg | | | |
| 225 | | | | | | 230 | | | | | | 235 | | | | | | 240 |
| Ala | Val | Tyr | Gln | Pro | Ile | Ser | Leu | Thr | Gly | Lys | Leu | Lys | Phe | Thr | Gly | | | |
| | | | | | 245 | | | | | | 250 | | | | | | 255 | |
| Val | Cys | Gln | Ser | Ser | Pro | Ser | Pro | Trp | Leu | Ser | Gly | Glu | Gly | Thr | Ser | | | |
| | | | | | 260 | | | | | | 265 | | | | | | 270 | |

<210> 2675

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2675

Met Asp Asn Thr Cys Tyr Pro Cys Pro Ala Pro Arg Ala Arg Lys Tyr
1 5 10 15

Lys Cys Gly Leu Pro Gln Pro Cys Pro Glu Glu His Leu Ala Phe Arg
 20 25 30
 Val Val Ser Gly Ala Ala Asn Val Ile Gly Pro Lys Ile Cys Leu Glu
 35 40 45
 Asp Lys Met Leu Met Ser Ser Val Lys Asp Asn Val Gly Arg Gly Leu
 50 55 60
 Asn Ile Ala Leu Val Asn Gly Val Ser Gly Glu Leu Ile Glu Ala Arg
 65 70 75 80
 Ala Phe Asp Met Trp Ala Gly Asp Val Asn Asp Leu Leu Lys Phe Ile
 85 90 95
 Arg Pro Leu His Glu Gly Thr Leu Val Phe Val Ala Ser Tyr Asp Asp
 100 105 110
 Pro Ala Thr Lys Met Asn Glu Glu Thr Arg Lys Leu Phe Ser Glu Leu
 115 120 125
 Gly Ser Arg Asn Ala Lys Glu Leu Ala Phe Arg Asp Ser Trp Val Phe
 130 135 140
 Val Gly Ala Lys Gly Val Gln Asn Lys Ser Pro Phe Glu Gln His Val
 145 150 155 160
 Lys Asn Ser Lys His Ser Asn Lys Tyr Glu Gly Trp Pro Glu Ala Leu
 165 170 175
 Glu Met Glu Gly Cys Ile Pro Arg Arg Ser Thr Ala Ser
 180 185

<210> 2676

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2676

Met Thr Pro Gly Pro Asn His His Pro Gly Arg Arg Ala Gln Leu Ser
 1 5 10 15
 Arg Thr Ser Pro Tyr Ile Phe Leu Pro His His Glu Ser Ile Tyr Gln
 20 25 30
 Gln Ala Tyr Arg His Pro Leu Arg Ala Ala Pro Glu Glu Val Ala Gly
 35 40 45

Cys Gly Ile Leu Arg Ser Leu His Ser Ser Lys Ser Gly Leu Ala Trp
 50 55 60
 Gly Thr Leu Pro Asp Leu Glu Glu Asp Pro Glu Ala Glu Gly Ser Glu
 65 70 75 80
 Leu Arg Ala Phe Pro Ala Pro Ala Pro Ser Trp Gln Gln Thr Cys His
 85 90 95
 Gln Ala Leu Gly Lys Ser Cys Phe Cys Gly Leu Ser Pro Ser Ser Arg
 100 105 110
 Pro Leu Glu Leu Pro Pro Pro Ser Cys Pro Phe Phe Ser Lys Ala Pro
 115 120 125
 Trp Val Arg Ile Arg Gly Ser Val Cys Ser Leu Ile
 130 135 140

<210> 2677

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2677

Met Val Arg Met Ser Arg Pro Leu Phe Leu Asp Trp Ala Trp Arg Pro
 1 5 10 15
 Leu Cys Ser Pro Ser Gln Ser Leu Pro Leu Thr Tyr Gly Pro Glu Gly
 20 25 30
 Trp Ile Leu Gln Trp Lys Gly Thr Cys Arg Gln Gln Thr Ala Leu His
 35 40 45
 Cys Pro Phe Asp Phe Pro Gln Ala Pro Leu Arg Gly Arg His Thr Leu
 50 55 60
 Ser Gln Val Pro Asn Lys Gly His Glu Lys Ala Ser Ala Val Gln Leu
 65 70 75 80
 Pro Glu Lys Gln Gly Thr Asp Gln Ser Arg Arg Gly Pro Thr Ser Ala
 85 90 95
 Val Thr Lys Ala Arg Thr Ser Tyr Pro Glu Ser Glu Thr Phe Ile Val
 100 105 110
 Tyr Leu Cys Ser Tyr Phe Trp Asn Ser Ser Lys Gly Val Tyr Met Ser
 115 120 125

Gly Ser Thr

130

<210> 2678

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2678

Met Asp Ser Gln Lys Ser Ala Cys Glu Met Gly Leu Ala Arg Ala Pro
 1 5 10 15
 Gln Gly Gln Ala Pro Gln Glu Ile Cys Pro Gln Pro Ala Pro Pro Gly
 20 25 30
 Asp Arg Pro Pro Thr Val Ala Cys Met Ala Gly Arg Gly Met Ala Leu
 35 40 45
 Ser Pro Gln His His Pro Tyr Thr Cys Cys Leu Tyr Gln His Pro Leu
 50 55 60
 Leu Pro Pro Pro Pro Pro Ala Thr Thr Val His Ser Leu Pro His Arg
 65 70 75 80
 Pro Ala Phe Pro His Pro Pro Asn Thr Cys Thr His Ser Ile Pro Phe
 85 90 95
 Pro His Val Leu Leu Arg Thr Gly Ala Trp Ala Ser Gly Thr Ala Trp
 100 105 110
 Glu Ser Thr Pro Trp Trp Asp Met Lys Arg Ile Leu Gly Val Trp Phe
 115 120 125
 Val Asp Gln Gly Ser Leu Leu Thr Val Trp Gly Glu Val Ser Gly Gly
 130 135 140
 Trp Thr Arg Ala Ser Glu Leu Gln Arg Cys Phe Phe Leu Lys Pro Ser
 145 150 155 160
 Ser Asp Ser Met Gly Leu Ala
 165

<210> 2679

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2679

```

Met Thr Thr Thr Ala Pro Gly Val Gly Ser Glu Ser Gln Val Glu Arg
 1             5             10             15
Leu Leu Ala Cys Gly Gly Arg Trp Gly Ala Arg Arg Gln Gly Cys Cys
          20             25             30
Trp His Asp Leu Pro Lys Ala Pro His Ala Gly Cys Phe Leu Ala Ser
      35             40             45
Ser Leu Arg Val Gln Val Arg Gln Lys Pro Leu Asn Val Arg Leu Gln
      50             55             60
Asp Pro Val Pro Ala Val Ala Val Leu Gly Glu Lys Lys Val Gly Asp
      65             70             75             80
Asp Gln Glu Pro Cys Thr Lys Thr Ala Ala Val Arg Glu Gly Glu Ser
          85             90             95
Val Gly Cys Thr Ala Glu Gly Gly Cys Leu Gly Leu Ser Gly Gly Cys
          100            105            110
Gln Gly Trp Leu Ala Pro Gly Leu Val Glu Leu Arg Ser Ala Ala Leu
          115            120            125
Asn Val Cys Ser Gly Tyr Phe Val Leu
      130             135

```

<210> 2680

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2680

```

Met Ser Thr Leu Ser Gly Arg Pro Leu Ser Ser Leu Leu Leu Gly Gln
 1             5             10             15
Gly Asp His Arg Ser Ala Thr Trp Leu Gly Arg Gly Gly Gly Ala Gly
          20             25             30
Pro Gly Gln Ser Gly Pro Gly His Gly Gln Gly Thr Ala Thr Ser Trp

```

| | | |
|---------------------------------|---------------------------------|-----------------|
| 35 | 40 | 45 |
| Ala Arg Thr Gly Glu Arg Gly | Ala Gly Pro Gly Pro | Ala Cys Pro Arg |
| 50 | 55 | 60 |
| Cys Ala Gly Glu Ala Ser Arg Gly | Arg Gln Arg Ala Arg Ser Gly | Pro |
| 65 | 70 | 75 |
| Arg Arg Ser Pro Arg Pro Pro Arg | Cys Pro Ala Pro Arg Leu Ala Asp | |
| 85 | 90 | 95 |
| Pro Ala Ser Ser Arg Ser Asp Ala | Pro Ala Pro Pro Arg Gly Arg Ser | |
| 100 | 105 | 110 |
| Pro Arg Val Leu Leu Phe Pro Gln | Val Gln Ala Glu Pro Leu Glu Pro | |
| 115 | 120 | 125 |
| Trp Pro Ala Leu Pro Ala Ala Pro | Lys Pro Leu Ala Ser Pro Glu Ala | |
| 130 | 135 | 140 |
| Gly Met Ala Gly Pro Gly Gly Arg | Arg Thr Thr Ser Leu Leu Lys Arg | |
| 145 | 150 | 155 |
| Arg Gly Cys Gly Cys Cys Trp Arg | Gly Glu Ala His Ser Pro Arg Thr | |
| 165 | 170 | 175 |
| Ala Arg Thr Gly Arg Thr Arg Cys | Gly Arg Ala Arg Arg Thr Pro Ala | |
| 180 | 185 | 190 |
| Pro Arg Gln Val Ala Thr Ala Glu | Glu Arg Asn Ser Pro Arg Val Leu | |
| 195 | 200 | 205 |
| Ser Ser Leu Gly Phe Pro Thr Thr | Ser Lys Ser Trp Lys Thr Gln Gly | |
| 210 | 215 | 220 |
| Arg Ala Arg Gly Ala Met Ala Ser | Pro Ser Ser Ser Ser Glu Ala Thr | |
| 225 | 230 | 235 |
| Gly Lys Pro Arg Gly Arg Asp Gly | Ser Pro Arg Met Gly Glu Glu Asp | |
| 245 | 250 | 255 |
| Val Pro Pro Glu Glu Lys Arg Leu | Gly Leu | |
| 260 | 265 | |

<210> 2681

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2681

Met Gln Tyr Ser Val Trp Ala Leu Ile Gly Ser Arg Leu Sér Gln Pro
 1 5 10 15
 Lys Arg Gln Glu Thr Ala Lys Ala Ser Leu Lys Leu Arg Gly Lys Leu
 20 25 30
 Leu Ser Pro His Pro Ser Glu Ser Leu Leu Glu Pro Pro Gly Glu Leu
 35 40 45
 Cys Ser Leu Asp Arg Pro Ala Ala Ile Gly His Leu Pro Ser Leu Gly
 50 55 60
 Pro Gln His Arg Gly Ala Gln Val Thr Gly Cys Leu Leu Arg Ala Val
 65 70 75 80
 Thr Gly Gln Ala Ile Tyr Asn Ser Val Cys Ala Trp Ala Leu Gln Cys
 85 90 95
 Val His Ala Val Gly Val Asp Gly Cys
 100 105

<210> 2682

<211> 190

<212> PRT

<213> Homo sapiens

<400> 2682

Met Ala Leu Arg Gly His Pro Glu Pro Gln Pro Thr Asn Thr Pro Leu
 1 5 10 15
 Ser Ala Thr Val Gly Gly Pro Ile Ser Leu Phe Thr Gln Pro Arg Cys
 20 25 30
 His Ser Ala Ala Arg Asp Leu Val Trp Ser Gln Ala Trp Pro Asp Pro
 35 40 45
 Asp Val Leu Glu Ile Ser Met Gln Thr Pro Gly Gly Ser Ser Cys Arg
 50 55 60
 Lys Glu Ala Val Leu Pro Arg Leu Arg Val Thr Arg Pro Leu Val Pro
 65 70 75 80
 Glu Pro Ala Ile Leu Pro Val Cys Ala Ala Arg Leu Ala Gly Ser Leu
 85 90 95
 Ala Thr Asp Leu Ser Arg Ser His Ser Leu Leu Pro Pro Trp Val Asp

```

          100              105              110
Leu Lys Glu Pro Pro Pro Pro Ser Ala Pro Ser Leu Leu Leu Glu Asp
          115              120              125
Pro Gly Gln Gly Gly Cys His Gly Ala Gln Ser Cys Val Gly Thr Cys
          130              135              140
Glu Leu Ala Asn Gly Ala Arg Gly Phe Cys Pro Glu Met Gly Gln Asn
          145              150              155              160
Glu Ser Leu Ser Glu Glu Arg Lys Gly His Glu Ser Lys Arg Lys Ser
          165              170              175
Gly Gly Arg Gly Ser Pro Ser Ser His Pro Thr Gln Ala Ser
          180              185              190

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<210> 2683

<211> 354

<212> PRT

<213> Homo sapiens

<400> 2683

```

Met Val Gly Lys Tyr Phe Ser Arg Arg Lys Ala Leu Ala Tyr Gly Ile
  1              5              10              15
Ala Met Ser Gly Ser Gly Ile Gly Thr Phe Ile Leu Ala Pro Val Val
          20              25              30
Gln Leu Leu Ile Glu Gln Phe Ser Trp Arg Gly Ala Leu Leu Ile Leu
          35              40              45
Gly Gly Phe Val Leu Asn Leu Cys Val Cys Gly Ala Leu Met Arg Pro
          50              55              60
Ile Thr Leu Lys Glu Asp His Thr Thr Pro Glu Gln Asn His Val Cys
          65              70              75              80
Arg Thr Gln Lys Glu Asp Ile Lys Arg Val Ser Pro Tyr Ser Ser Leu
          85              90              95
Thr Lys Glu Trp Ala Gln Thr Cys Leu Cys Cys Cys Leu Gln Gln Glu
          100              105              110
Tyr Ser Phe Leu Leu Met Ser Asp Phe Val Val Leu Ala Val Ser Val
          115              120              125
Leu Phe Met Ala Tyr Gly Cys Ser Pro Leu Phe Val Tyr Leu Val Pro

```

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Tyr Ala Leu Ser Val Gly Val Ser His Gln Gln Ala Ala Phe Leu Met | | | |
| 145 | 150 | 155 | 160 |
| Ser Ile Leu Gly Val Ile Asp Ile Ile Gly Asn Ile Thr Phe Gly Trp | | | |
| | 165 | 170 | 175 |
| Leu Thr Asp Arg Arg Cys Leu Lys Asn Tyr Gln Tyr Val Cys Tyr Leu | | | |
| | 180 | 185 | 190 |
| Phe Ala Val Gly Met Asp Gly Leu Ser Tyr Leu Cys Leu Pro Met Leu | | | |
| | 195 | 200 | 205 |
| Gln Ser Leu Pro Leu Leu Val Pro Phe Ser Cys Thr Phe Gly Tyr Phe | | | |
| | 210 | 215 | 220 |
| Asp Gly Ala Tyr Val Thr Leu Ile Pro Val Val Thr Thr Glu Ile Val | | | |
| 225 | 230 | 235 | 240 |
| Gly Thr Thr Ser Leu Ser Ser Ala Leu Gly Val Val Tyr Phe Leu His | | | |
| | 245 | 250 | 255 |
| Ala Val Pro Tyr Leu Val Ser Pro Pro Ile Ala Gly Arg Leu Val Asp | | | |
| | 260 | 265 | 270 |
| Thr Thr Gly Ser Tyr Thr Ala Ala Phe Leu Leu Cys Gly Phe Ser Met | | | |
| | 275 | 280 | 285 |
| Ile Phe Ser Ser Val Leu Leu Gly Phe Ala Arg Leu Ile Lys Arg Met | | | |
| | 290 | 295 | 300 |
| Arg Lys Thr Gln Leu Gln Phe Ile Ala Lys Glu Ser Asp Pro Lys Leu | | | |
| 305 | 310 | 315 | 320 |
| Gln Leu Trp Thr Asn Gly Ser Val Ala Tyr Ser Val Ala Arg Glu Leu | | | |
| | 325 | 330 | 335 |
| Asp Gln Lys His Gly Glu Pro Val Ala Thr Ala Val Pro Gly Tyr Ser | | | |
| | 340 | 345 | 350 |
| Leu Thr | | | |

<210> 2684

<211> 1168

<212> PRT

<213> Homo sapiens

<400> 2684

Met His Ile Val Lys Gly Lys Leu Glu Asn Val Arg Val Met Leu Val
 1 5 10 15
 Pro Ser Pro Arg Tyr Val Gly Leu Gln Asn Asp Glu Pro Pro Arg Leu
 20 25 30
 Met Gly Glu Gly Phe Val Val Met Gln Ser Asn Asp Val Asp Ile Tyr
 35 40 45
 Tyr Tyr Met Asp Glu Pro Gly Leu Val Pro Glu Glu Thr Glu Glu Asn
 50 55 60
 Ile Glu Gly Glu Met Ser Ser Glu Asp Cys Lys Leu Gln Asp Leu Pro
 65 70 75 80
 Pro Cys Trp Gly Leu Asp Ile Val Cys Gly Lys Gly Thr Asp Phe Asn
 85 90 95
 Tyr Gly Pro Trp Ala Asp Arg Gln Arg Asp Cys Leu Trp Lys Phe Phe
 100 105 110
 Phe Pro Pro Asp Tyr Gln Val Leu Lys Val Ser Glu Ile Ala Gln Pro
 115 120 125
 Gly Arg Pro Arg Gln Ile Leu Ala Phe Glu Leu Arg Met Asn Ile Ile
 130 135 140
 Ala Asp Ala Thr Ile Asp Leu Leu Phe Thr Lys Asn Arg Glu Thr Asn
 145 150 155 160
 Ala Val His Val Asn Val Gly Ala Gly Ser Tyr Leu Glu Ile Asn Ile
 165 170 175
 Pro Met Thr Val Glu Glu Asn Gly Tyr Thr Pro Ala Ile Lys Gly Gln
 180 185 190
 Leu Leu His Val Asp Ala Thr Thr Ser Met Gln Tyr Arg Thr Leu Leu
 195 200 205
 Glu Ala Glu Met Leu Ala Phe His Ile Asn Ala Ser Tyr Pro Arg Ile
 210 215 220
 Trp Asn Met Pro Gln Thr Trp Gln Cys Glu Leu Glu Val Tyr Lys Ala
 225 230 235 240
 Thr Tyr His Phe Ile Phe Ala Gln Lys Asn Phe Phe Thr Asp Leu Ile
 245 250 255
 Gln Asp Trp Ser Ser Asp Ser Pro Pro Asp Ile Phe Ser Phe Val Pro
 260 265 270
 Tyr Thr Trp Asn Phe Lys Ile Met Phe His Gln Phe Glu Met Ile Trp

| | | |
|---|-----|-----|
| 275 | 280 | 285 |
| Ala Ala Asn Gln His Asn Trp Ile Asp Cys Ser Thr Lys Gln Gln Glu | | |
| 290 | 295 | 300 |
| Asn Val Tyr Leu Ala Ala Cys Gly Glu Thr Leu Asn Ile Asp Phe Ser | | |
| 305 | 310 | 315 |
| Leu Pro Phe Thr Asp Phe Val Pro Ala Thr Cys Asn Thr Lys Phe Ser | | |
| 325 | 330 | 335 |
| Leu Arg Gly Glu Asp Val Asp Leu His Leu Phe Leu Pro Asp Cys His | | |
| 340 | 345 | 350 |
| Pro Ser Lys Tyr Ser Leu Phe Met Leu Val Lys Asn Cys His Pro Asn | | |
| 355 | 360 | 365 |
| Lys Met Ile His Asp Thr Gly Ile Pro Ala Glu Cys Gln Ser Gly Gln | | |
| 370 | 375 | 380 |
| Lys Thr Val Lys Pro Lys Trp Arg Asn Val Thr Gln Glu Lys Ser Gly | | |
| 385 | 390 | 395 |
| Trp Val Glu Cys Trp Thr Val Pro Ser Val Met Leu Thr Ile Asp Tyr | | |
| 405 | 410 | 415 |
| Thr Trp His Pro Ile Tyr Pro Gln Lys Ala Asp Glu Gln Leu Lys Gln | | |
| 420 | 425 | 430 |
| Ser Leu Ser Glu Met Glu Glu Thr Met Leu Ser Val Leu Arg Pro Ser | | |
| 435 | 440 | 445 |
| Gln Lys Thr Ser Asp Arg Val Val Ser Ser Pro Ser Thr Ser Ser Arg | | |
| 450 | 455 | 460 |
| Pro Pro Ile Asp Pro Ser Glu Leu Pro Pro Asp Lys Leu His Val Glu | | |
| 465 | 470 | 475 |
| Met Glu Leu Ser Pro Asp Ser Gln Ile Thr Leu Tyr Gly Pro Leu Leu | | |
| 485 | 490 | 495 |
| Asn Ala Phe Leu Cys Ile Lys Glu Asn Tyr Phe Gly Glu Asp Asp Met | | |
| 500 | 505 | 510 |
| Tyr Met Asp Phe Glu Glu Val Ile Ser Ser Pro Val Leu Ser Leu Ser | | |
| 515 | 520 | 525 |
| Thr Ser Ser Ser Ser Gly Trp Thr Ala Val Gly Met Glu Asn Asp Lys | | |
| 530 | 535 | 540 |
| Lys Glu Asn Glu Gly Ser Ala Lys Ser Ile His Pro Leu Ala Leu Arg | | |
| 545 | 550 | 555 |
| Pro Trp Asp Ile Thr Val Leu Val Asn Leu Tyr Lys Val His Gly Arg | | |

| | | |
|---|-----|-----|
| 565 | 570 | 575 |
| Leu Pro Val His Gly Thr Thr Asp Gly Pro Glu Cys Pro Thr Ala Phe | | |
| 580 | 585 | 590 |
| Leu Glu Arg Leu Cys Phe Glu Met Lys Lys Gly Phe Arg Glu Thr Met | | |
| 595 | 600 | 605 |
| Leu Gln Pro Ile Leu Ser Pro Leu Asn Val Phe Val Ser Asp Asn Tyr | | |
| 610 | 615 | 620 |
| Gln Arg Pro Pro Val Asp Glu Val Leu Arg Glu Gly His Ile Asn Leu | | |
| 625 | 630 | 635 |
| Ser Gly Leu Gln Leu Arg Ala His Ala Met Phe Ser Ala Glu Gly Leu | | |
| 645 | 650 | 655 |
| Pro Leu Gly Ser Asp Ser Leu Glu Tyr Ala Trp Leu Ile Asp Val Gln | | |
| 660 | 665 | 670 |
| Ala Gly Ser Leu Thr Ala Lys Val Thr Ala Pro Gln Leu Ala Cys Leu | | |
| 675 | 680 | 685 |
| Leu Glu Trp Gly Gln Thr Phe Val Phe His Val Val Cys Arg Glu Tyr | | |
| 690 | 695 | 700 |
| Glu Leu Glu Arg Pro Lys Ser Val Ile Ile Cys Gln His Gly Ile Asp | | |
| 705 | 710 | 715 |
| Arg Arg Phe Cys Glu Ser Lys Leu Ser Cys Ile Pro Gly Pro Cys Pro | | |
| 725 | 730 | 735 |
| Thr Ser Asp Asp Leu Lys Tyr Thr Met Ile Arg Leu Ala Val Asp Gly | | |
| 740 | 745 | 750 |
| Ala Asp Ile Tyr Ile Val Glu His Gly Cys Ala Thr Asn Ile Lys Met | | |
| 755 | 760 | 765 |
| Gly Ala Ile Arg Val Ala Asn Cys Asn Leu His Asn Gln Ser Val Gly | | |
| 770 | 775 | 780 |
| Glu Gly Ile Ser Ala Ala Ile Gln Asp Phe Gln Val Arg Gln Tyr Ile | | |
| 785 | 790 | 795 |
| Glu Gln Leu Asn Asn Cys Arg Ile Gly Leu Gln Pro Ala Val Leu Arg | | |
| 805 | 810 | 815 |
| Arg Ala Tyr Trp Leu Glu Ala Gly Ser Ala Asn Leu Gly Leu Ile Thr | | |
| 820 | 825 | 830 |
| Val Asp Ile Ala Leu Ala Ala Asp His His Ser Lys His Glu Ala Gln | | |
| 835 | 840 | 845 |
| Arg His Phe Leu Glu Thr His Asp Ala Arg Thr Lys Arg Leu Trp Phe | | |

| | | | |
|---|------|------|------|
| 850 | 855 | 860 | |
| Leu Trp Pro Asp Asp Ile Leu Lys Asn Lys Arg Cys Arg Asn Lys Cys | | | |
| 865 | 870 | 875 | 880 |
| Gly Cys Leu Gly Gly Cys Arg Phe Phe Gly Gly Thr Val Thr Gly Leu | | | |
| | 885 | 890 | 895 |
| Asp Phe Phe Lys Leu Glu Glu Leu Thr Pro Ser Ser Ser Ser Ala Phe | | | |
| | 900 | 905 | 910 |
| Ser Ser Thr Ser Ala Glu Ser Asp Met Tyr Tyr Gly Gln Ser Leu Leu | | | |
| | 915 | 920 | 925 |
| Gln Pro Gly Glu Trp Ile Ile Thr Lys Glu Ile Pro Lys Ile Ile Asp | | | |
| | 930 | 935 | 940 |
| Gly Asn Val Asn Gly Met Lys Arg Lys Glu Trp Glu Asn Lys Ser Val | | | |
| 945 | 950 | 955 | 960 |
| Gly Ile Glu Val Glu Arg Lys Thr Gln His Leu Ser Leu Gln Val Pro | | | |
| | 965 | 970 | 975 |
| Leu Arg Ser His Ser Ser Ser Ser Ser Ser Glu Glu Asn Ser Ser Ser | | | |
| | 980 | 985 | 990 |
| Ser Ala Ala Gln Pro Leu Leu Ala Gly Glu Lys Glu Ser Pro Ser Ser | | | |
| | 995 | 1000 | 1005 |
| Val Ala Asp Asp His Leu Val Gln Lys Glu Phe Leu His Gly Thr Lys | | | |
| | 1010 | 1015 | 1020 |
| Arg Asp Asp Gly Gln Ala Ser Ile Pro Thr Glu Ile Ser Gly Asn Ser | | | |
| 1025 | 1030 | 1035 | 1040 |
| Pro Val Ser Pro Asn Thr Gln Asp Lys Ser Val Gly Gln Ser Pro Leu | | | |
| | 1045 | 1050 | 1055 |
| Arg Ser Pro Leu Lys Arg Gln Ala Ser Val Cys Ser Thr Arg Leu Gly | | | |
| | 1060 | 1065 | 1070 |
| Ser Thr Lys Ser Leu Thr Ala Ala Phe Tyr Gly Asp Lys Gln Pro Val | | | |
| | 1075 | 1080 | 1085 |
| Thr Val Gly Val Gln Phe Ser Ser Asp Val Ser Arg Ser Asp Glu Asn | | | |
| | 1090 | 1095 | 1100 |
| Val Leu Asp Ser Pro Lys Gln Arg Arg Ser Phe Gly Ser Phe Pro Tyr | | | |
| 1105 | 1110 | 1115 | 1120 |
| Thr Pro Ser Ala Asp Ser Asn Ser Phe His Gln Tyr Arg Ser Met Asp | | | |
| | 1125 | 1130 | 1135 |
| Ser Ser Met Ser Met Ala Asp Ser Glu Ala Tyr Phe Ser Ala Ala Glu | | | |

1140 1145 1150
 Glu Phe Glu Pro Ile Ser Ser Asp Glu Gly Pro Gly Thr Tyr Pro Gly

1155 1160 1165

<210> 2685

<211> 778

<212> PRT

<213> Homo sapiens

<400> 2685

Met Ser Leu Thr Gln Lys Gly Asp Gly Glu Ser Gln Pro Gln Phe Pro
 1 5 10 15
 Ala Val Pro Leu Glu Pro Leu Pro Thr Thr Glu Gly Thr Pro Gly Leu
 20 25 30
 Pro Leu Gln Gln Ala Glu Glu Arg Tyr Glu Ser Gln Glu Pro Leu Ala
 35 40 45
 Gly Gln Glu Ser Pro Leu Pro Leu Ala Thr Arg Glu Ala Ala Leu Pro
 50 55 60
 Ile Leu Glu Pro Val Leu Gly Gln Glu Gln Pro Ala Ala Pro Asp Gln
 65 70 75 80
 Pro Cys Val Leu Phe Ala Asp Ala Pro Glu Pro Gly Gln Ala Leu Pro
 85 90 95
 Val Glu Glu Glu Ala Val Thr Leu Ala Arg Ala Glu Thr Thr Gln Ala
 100 105 110
 Arg Thr Glu Ala Gln Asp Leu Cys Arg Ala Ser Pro Glu Pro Pro Gly
 115 120 125
 Pro Glu Ser Ser Ser Arg Trp Leu Asp Asp Leu Leu Ala Ser Pro Pro
 130 135 140
 Pro Ser Gly Gly Gly Ala Arg Arg Gly Ala Gly Ala Glu Leu Lys Asp
 145 150 155 160
 Thr Gln Ser Pro Ser Thr Cys Ser Glu Gly Leu Leu Gly Trp Ser Gln
 165 170 175
 Lys Asp Leu Gln Ser Glu Phe Gly Ile Thr Gly Asp Pro Gln Pro Ser
 180 185 190

| | | | |
|---|-----|-----|-----|
| Ser Phe Ser Pro Ser Ser Trp Cys Gln Gly Ala Ser Gln Asp Tyr Gly | | | |
| 195 | 200 | 205 | |
| Leu Gly Gly Ala Ser Pro Arg Gly Asp Pro Gly Leu Gly Glu Arg Asp | | | |
| 210 | 215 | 220 | |
| Trp Thr Ser Lys Tyr Gly Gln Gly Ala Gly Glu Gly Ser Thr Arg Glu | | | |
| 225 | 230 | 235 | 240 |
| Trp Ala Ser Arg Cys Gly Ile Gly Gln Glu Glu Met Glu Ala Ser Ser | | | |
| 245 | 250 | 255 | |
| Ser Gln Asp Gln Ser Lys Val Ser Ala Pro Gly Val Leu Thr Ala Gln | | | |
| 260 | 265 | 270 | |
| Asp Arg Val Val Gly Lys Pro Ala Gln Leu Gly Thr Gln Arg Ser Gln | | | |
| 275 | 280 | 285 | |
| Glu Ala Asp Val Gln Asp Trp Glu Phe Arg Lys Arg Asp Ser Gln Gly | | | |
| 290 | 295 | 300 | |
| Thr Tyr Ser Ser Arg Asp Ala Glu Leu Gln Asp Gln Glu Phe Gly Lys | | | |
| 305 | 310 | 315 | 320 |
| Arg Asp Ser Leu Gly Thr Tyr Ser Ser Arg Asp Val Ser Leu Gly Asp | | | |
| 325 | 330 | 335 | |
| Trp Glu Phe Gly Lys Arg Asp Ser Leu Gly Ala Tyr Ala Ser Gln Asp | | | |
| 340 | 345 | 350 | |
| Ala Asn Glu Gln Gly Gln Asp Leu Gly Lys Arg Asp His His Gly Arg | | | |
| 355 | 360 | 365 | |
| Tyr Ser Ser Gln Asp Ala Asp Glu Gln Asp Trp Glu Phe Gln Lys Arg | | | |
| 370 | 375 | 380 | |
| Asp Val Ser Leu Gly Thr Tyr Gly Ser Arg Ala Ala Glu Pro Gln Glu | | | |
| 385 | 390 | 395 | 400 |
| Gln Glu Phe Gly Lys Ser Ala Trp Ile Arg Asp Tyr Ser Ser Gly Gly | | | |
| 405 | 410 | 415 | |
| Ser Ser Arg Thr Leu Asp Ala Gln Asp Arg Ser Phe Gly Thr Arg Pro | | | |
| 420 | 425 | 430 | |
| Leu Ser Ser Gly Phe Ser Pro Glu Glu Ala Gln Gln Gln Asp Glu Glu | | | |
| 435 | 440 | 445 | |
| Phe Glu Lys Lys Ile Pro Ser Val Glu Asp Ser Leu Gly Glu Gly Ser | | | |
| 450 | 455 | 460 | |
| Arg Asp Ala Gly Arg Pro Gly Glu Arg Gly Ser Gly Gly Leu Phe Ser | | | |
| 465 | 470 | 475 | 480 |

Pro Ser Thr Ala His Val Pro Asp Gly Ala Leu Gly Gln Arg Asp Gln
 485 490 495
 Ser Ser Trp Gln Asn Ser Asp Ala Ser Gln Glu Val Gly Gly His Gln
 500 505 510
 Glu Arg Gln Gln Ala Gly Ala Gln Gly Pro Gly Ser Ala Asp Leu Glu
 515 520 525
 Asp Gly Glu Met Gly Lys Arg Gly Trp Val Gly Glu Phe Ser Leu Ser
 530 535 540
 Val Gly Pro Gln Arg Glu Ala Ala Phe Ser Pro Gly Gln Gln Asp Trp
 545 550 555 560
 Ser Arg Asp Phe Cys Ile Glu Ala Ser Glu Arg Ser Tyr Gln Phe Gly
 565 570 575
 Ile Ile Gly Asn Asp Arg Val Ser Gly Ala Gly Phe Ser Pro Ser Ser
 580 585 590
 Lys Met Glu Gly Gly His Phe Val Pro Pro Gly Lys Thr Thr Ala Gly
 595 600 605
 Ser Val Asp Trp Thr Asp Gln Leu Gly Leu Arg Asn Leu Glu Val Ser
 610 615 620
 Ser Cys Val Gly Ser Gly Gly Ser Ser Glu Ala Arg Glu Ser Ala Val
 625 630 635 640
 Gly Gln Met Gly Trp Ser Gly Gly Leu Ser Leu Arg Asp Met Asn Leu
 645 650 655
 Thr Gly Cys Leu Glu Ser Gly Gly Ser Glu Glu Pro Gly Gly Ile Gly
 660 665 670
 Val Gly Glu Lys Asp Trp Thr Ser Asp Val Asn Val Lys Ser Lys Asp
 675 680 685
 Leu Ala Glu Val Gly Glu Gly Gly Gly His Ser Gln Ala Arg Glu Ser
 690 695 700
 Gly Val Gly Gln Thr Asp Trp Ser Gly Val Glu Ala Gly Glu Phe Leu
 705 710 715 720
 Lys Ser Arg Glu Arg Leu Gly Arg His Ile Tyr Ala Leu Cys Ile Thr
 725 730 735
 Leu Arg Thr Pro Pro Thr Pro Ser Leu Pro Trp Ile Ser Ser Leu Val
 740 745 750
 Val Glu Gly Phe Val Pro Ser Ser Pro Pro Ser Leu Ser Leu Ser Ala
 755 760 765

Ser Ser Ser Ser Leu Pro Trp Val Phe Phe
 770 775

<210> 2686

<211> 1430

<212> PRT

<213> Homo sapiens

<400> 2686

Met Thr Ser Ala Ala Glu Ile Lys Lys Pro Pro Val Ala Pro Lys Pro
 1 5 10 15
 Lys Phe Val Val Ala Asn Asn Lys Pro Ala Pro Pro Pro Ile Ala Pro
 20 25 30
 Lys Pro Asp Ile Val Ile Ser Ser Val Pro Gln Ser Thr Lys Lys Met
 35 40 45
 Lys Pro Ala Ile Ala Pro Lys Pro Lys Val Leu Lys Thr Ser Pro Val
 50 55 60
 Arg Glu Ile Gly Gln Ser Pro Ser Arg Lys Ile Met Leu Asn Leu Glu
 65 70 75 80
 Gly His Lys Gln Glu Leu Ala Glu Ser Thr Asp Asn Phe Asn Cys Lys
 85 90 95
 Tyr Glu Gly Asn Gln Ser Asn Asp Tyr Ile Ser Pro Met Cys Ser Cys
 100 105 110
 Ser Ser Glu Cys Ile His Lys Leu Gly His Arg Glu Asn Leu Cys Val
 115 120 125
 Lys Gln Leu Val Leu Glu Pro Leu Glu Met Asn Glu Asn Leu Glu Asn
 130 135 140
 Ser Lys Ile Asp Glu Thr Leu Thr Ile Lys Thr Arg Ser Lys Cys Asp
 145 150 155 160
 Leu Tyr Gly Glu Lys Ala Lys Asn Gln Gly Gly Val Val Leu Lys Ala
 165 170 175
 Ser Val Leu Glu Glu Glu Leu Lys Asp Ala Leu Ile His Gln Met Pro
 180 185 190
 Pro Phe Ile Ser Ala Gln Lys His Arg Pro Thr Asp Ser Pro Glu Met
 195 200 205

Asn Gly Gly Cys Asn Ser Asn Gly Gln Phe Arg Ile Glu Phe Ala Asp
 210 215 220
 Leu Ser Pro Ser Pro Ser Ser Phe Glu Lys Val Pro Asp His His Ser
 225 230 235 240
 Cys His Leu Gln Leu Pro Ser Asp Glu Cys Glu His Phe Glu Thr Cys
 245 250 255
 Gln Asp Asp Ser Glu Lys Ser Asn Asn Cys Phe Gln Ser Ser Glu Leu
 260 265 270
 Glu Ala Leu Glu Asn Gly Lys Arg Ser Thr Leu Ile Ser Ser Asp Gly
 275 280 285
 Val Ser Lys Lys Ser Glu Val Lys Asp Leu Gly Pro Leu Glu Ile His
 290 295 300
 Leu Val Pro Tyr Thr Pro Lys Phe Pro Thr Pro Lys Pro Arg Lys Thr
 305 310 315 320
 Arg Thr Ala Arg Leu Leu Arg Gln Lys Cys Val Asp Thr Pro Ser Glu
 325 330 335
 Ser Thr Glu Glu Pro Gly Asn Ser Asp Ser Ser Ser Ser Cys Leu Thr
 340 345 350
 Glu Asn Ser Leu Lys Ile Asn Lys Ile Ser Val Leu His Gln Asn Val
 355 360 365
 Leu Cys Lys Gln Glu Gln Val Asp Lys Met Lys Leu Gly Asn Lys Ser
 370 375 380
 Glu Leu Asn Met Glu Ser Asn Ser Asp Ala Gln Asp Leu Val Asn Ser
 385 390 395 400
 Gln Lys Ala Met Cys Asn Glu Thr Thr Ser Phe Glu Lys Met Ala Pro
 405 410 415
 Ser Phe Asp Lys Asp Ser Asn Leu Ser Ser Asp Ser Thr Thr Val Asp
 420 425 430
 Gly Ser Ser Met Ser Leu Ala Val Asp Glu Gly Thr Gly Phe Ile Arg
 435 440 445
 Cys Thr Val Ser Met Ser Leu Pro Lys Gln Leu Lys Leu Thr Cys Asn
 450 455 460
 Glu His Leu Gln Ser Gly Arg Asn Leu Gly Val Ser Ala Pro Gln Met
 465 470 475 480
 Gln Lys Glu Ser Val Ile Lys Glu Glu Asn Ser Leu Arg Ile Val Pro
 485 490 495

Lys Lys Pro Gln Arg His Ser Leu Pro Ala Thr Gly Val Leu Lys Lys
 500 505 510
 Ala Ala Ser Glu Glu Leu Leu Glu Lys Ser Ser Tyr Pro Ser Ser Glu
 515 520 525
 Glu Lys Ser Ser Glu Lys Ser Leu Glu Arg Asn His Leu Gln His Leu
 530 535 540
 Cys Ala Gln Asn Arg Gly Val Ser Ser Ser Phe Asp Met Pro Lys Arg
 545 550 555 560
 Ala Ser Glu Lys Pro Val Trp Lys Leu Pro His Pro Ile Leu Pro Phe
 565 570 575
 Ser Gly Asn Pro Glu Phe Leu Lys Ser Val Thr Val Ser Ser Asn Ser
 580 585 590
 Glu Pro Ser Thr Ala Leu Thr Lys Pro Arg Ala Lys Ser Leu Ser Ala
 595 600 605
 Met Asp Val Glu Lys Cys Thr Lys Pro Cys Lys Asp Ser Thr Lys Lys
 610 615 620
 Asn Ser Phe Lys Lys Leu Leu Ser Met Lys Leu Ser Ile Cys Phe Met
 625 630 635 640
 Lys Ser Asp Phe Gln Lys Phe Trp Ser Lys Ser Ser Gln Leu Gly Asp
 645 650 655
 Thr Thr Thr Gly His Leu Ser Ser Gly Glu Gln Lys Gly Ile Glu Ser
 660 665 670
 Asp Trp Gln Gly Leu Leu Val Gly Glu Glu Lys Arg Ser Lys Pro Ile
 675 680 685
 Lys Ala Tyr Ser Thr Glu Asn Tyr Ser Leu Glu Ser Gln Lys Lys Arg
 690 695 700
 Lys Lys Ser Arg Gly Gln Thr Ser Ala Ala Asn Gly Leu Arg Ala Glu
 705 710 715 720
 Ser Leu Asp Asp Gln Met Leu Ser Arg Glu Ser Ser Ser Gln Ala Pro
 725 730 735
 Tyr Lys Ser Val Thr Ser Leu Cys Ala Pro Glu Tyr Glu Asn Ile Arg
 740 745 750
 His Tyr Glu Glu Ile Pro Glu Tyr Glu Asn Leu Pro Phe Ile Met Ala
 755 760 765
 Ile Arg Lys Thr Gln Glu Leu Glu Trp Gln Asn Ser Ser Ser Met Glu
 770 775 780

Asp Ala Asp Ala Asn Val Tyr Glu Val Glu Glu Pro Tyr Glu Ala Pro
 785 790 795 800
 Asp Gly Gln Leu Gln Leu Gly Pro Arg His Gln His Ser Ser Ser Gly
 805 810 815
 Ala Ser Gln Glu Glu Gln Asn Asp Leu Gly Leu Gly Asp Leu Pro Ser
 820 825 830
 Asp Glu Glu Glu Ile Ile Asn Ser Ser Asp Glu Asp Asp Val Ser Ser
 835 840 845
 Glu Ser Ser Lys Gly Glu Pro Asp Pro Leu Glu Asp Lys Gln Asp Glu
 850 855 860
 Asp Asn Gly Met Lys Ser Lys Val His His Ile Ala Lys Glu Ile Met
 865 870 875 880
 Ser Ser Glu Lys Val Phe Val Asp Val Leu Lys Leu Leu His Ile Asp
 885 890 895
 Phe Arg Asp Ala Val Ala His Ala Ser Arg Gln Leu Gly Lys Pro Val
 900 905 910
 Ile Glu Asp Arg Ile Leu Asn Gln Ile Leu Tyr Tyr Leu Pro Gln Leu
 915 920 925
 Tyr Glu Leu Asn Arg Asp Leu Leu Lys Glu Leu Glu Glu Arg Met Leu
 930 935 940
 His Trp Thr Glu His Gln Arg Ile Ala Asp Ile Phe Val Lys Lys Gly
 945 950 955 960
 Pro Tyr Leu Lys Met Tyr Ser Thr Tyr Ile Lys Glu Phe Asp Lys Asn
 965 970 975
 Ile Ala Leu Leu Asp Glu Gln Cys Lys Lys Asn Pro Gly Phe Ala Ala
 980 985 990

 Val Val Arg Glu Phe Glu Met Ser Pro Arg Cys Ala Asn Leu Ala Leu
 995 1000 1005
 Lys His Tyr Leu Leu Lys Pro Val Gln Arg Ile Pro Gln Tyr Arg Leu
 1010 1015 1020
 Leu Leu Thr Asp Tyr Leu Lys Asn Leu Ile Glu Asp Ala Gly Asp Tyr
 1025 1030 1035 1040
 Arg Asp Thr Gln Asp Ala Leu Ala Val Val Ile Glu Val Ala Asn His
 1045 1050 1055
 Ala Asn Asp Thr Met Lys Gln Gly Asp Asn Phe Gln Lys Leu Met Gln

| | | |
|---|------|------|
| 1060 | 1065 | 1070 |
| Ile Gln Tyr Ser Leu Asn Gly His His Glu Ile Val Gln Pro Gly Arg | | |
| 1075 | 1080 | 1085 |
| Val Phe Leu Lys Glu Gly Ile Leu Met Lys Leu Ser Arg Lys Val Met | | |
| 1090 | 1095 | 1100 |
| Gln Pro Arg Met Phe Phe Leu Phe Asn Asp Ala Leu Leu Tyr Thr Thr | | |
| 1105 | 1110 | 1115 |
| Pro Val Gln Ser Gly Met Tyr Lys Leu Asn Asn Met Leu Ser Leu Ala | | |
| 1125 | 1130 | 1135 |
| Gly Met Lys Val Arg Lys Pro Thr Gln Glu Ala Tyr Gln Asn Glu Leu | | |
| 1140 | 1145 | 1150 |
| Lys Ile Glu Ser Val Glu Arg Ser Phe Ile Leu Ser Ala Ser Ser Ala | | |
| 1155 | 1160 | 1165 |
| Thr Glu Arg Asp Glu Trp Leu Glu Ala Ile Ser Arg Ala Ile Glu Glu | | |
| 1170 | 1175 | 1180 |
| Tyr Ala Lys Lys Arg Ile Thr Phe Cys Pro Ser Arg Ser Leu Asp Glu | | |
| 1185 | 1190 | 1195 |
| Ala Asp Ser Glu Asn Lys Glu Glu Val Ser Pro Leu Gly Ser Lys Ala | | |
| 1205 | 1210 | 1215 |
| Pro Ile Trp Ile Pro Asp Thr Arg Ala Thr Met Cys Met Ile Cys Thr | | |
| 1220 | 1225 | 1230 |
| Ser Glu Phe Thr Leu Thr Trp Arg Arg His His Cys Arg Ala Cys Gly | | |
| 1235 | 1240 | 1245 |
| Lys Ile Val Cys Gln Ala Cys Ser Ser Asn Lys Tyr Gly Leu Asp Tyr | | |
| 1250 | 1255 | 1260 |
| Leu Lys Asn Gln Pro Ala Arg Val Cys Glu His Cys Phe Gln Glu Leu | | |
| 1265 | 1270 | 1275 |
| Gln Lys Leu Asp His Gln His Ser Pro Arg Ile Gly Ser Pro Gly Asn | | |
| 1285 | 1290 | 1295 |
| His Lys Ser Pro Ser Ser Ala Leu Ser Ser Val Leu His Ser Ile Pro | | |
| 1300 | 1305 | 1310 |
| Ser Gly Arg Lys Gln Lys Lys Ile Pro Ala Ala Leu Lys Glu Val Ser | | |
| 1315 | 1320 | 1325 |
| Ala Asn Thr Glu Asp Ser Ser Met Ser Gly Tyr Leu Tyr Arg Ser Lys | | |
| 1330 | 1335 | 1340 |
| Gly Asn Lys Lys Pro Trp Lys His Phe Trp Phe Val Ile Lys Asn Lys | | |

1345 1350 1355 1360
 Val Leu Tyr Thr Tyr Ala Ala Ser Glu Asp Val Ala Ala Leu Glu Ser
 1365 1370 1375
 Gln Pro Leu Leu Gly Phe Thr Val Ile Gln Val Lys Asp Glu Asn Ser
 1380 1385 1390
 Glu Ser Lys Val Phe Gln Leu Leu His Lys Asn Met Leu Phe Tyr Val
 1395 1400 1405
 Phe Lys Ala Glu Asp Ala His Ser Ala Gln Lys Trp Ile Glu Ala Phe
 1410 1415 1420
 Gln Glu Gly Thr Ile Leu
 1425 1430

<210> 2687

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2687

Met His Thr Ser Gln Leu Glu Leu Glu His Leu Phe Leu Ser Cys Ser
 1 5 10 15
 Arg Trp Pro Gly His Thr Val Leu Phe Pro Ala Pro Ser Phe Leu Phe
 20 25 30
 Ser Phe Gln Thr Ser Leu Pro Gln Met Phe Ala Ile Pro His Leu Ser
 35 40 45
 Leu Gln Ile Leu Pro Ile Leu Ser Phe His Thr Ser Pro Met Pro Leu
 50 55 60
 Lys Met Pro Phe Met Phe Leu Ser Leu Pro Arg Asp Thr Phe Leu Met
 65 70 75 80
 Leu Glu Leu Val Leu Gly Thr Phe Thr Cys Asn Gly Ser Phe Phe Ile
 85 90 95
 His Lys Ala Ser
 100

<210> 2688

<211> 128

<212> PRT

<213> Homo sapiens

<400> 2688

```

Met Trp Lys Leu Pro Arg Leu Gly Ala Tyr Thr Phe Arg Ser Asn Ser
 1             5             10             15
Leu Ser Tyr Thr Leu Ala Pro Phe Ser Tyr Ser Trp Ser Gly Trp Asp
          20             25             30
Ala Gly His Gln Val Pro Arg Leu Tyr Thr Ala Gly Ser Pro Val Pro
      35             40             45
Cys Pro Arg Asn Arg Phe Ser Leu Leu Asp Leu Trp Ala Cys Asp Gly
      50             55             60
Arg Gly Tyr Arg Gln Asp Leu Cys His Ala Leu Lys Thr Phe Ser Pro
 65             70             75             80
Leu Ser Trp Leu Leu Leu Thr Ser Ala Asn Phe Cys Ser Trp Leu Glu
          85             90             95
Phe Leu Pro Arg Lys Trp Val Phe Leu Phe Tyr Ser Ile Ile Arg Leu
          100             105             110
Gln Ile Phe Gln Thr Phe Leu Leu Cys Phe Pro Phe Lys His Asn Phe
      115             120             125

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<210> 2689

<211> 470

<212> PRT

<213> Homo sapiens

<400> 2689

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Met Thr Pro Ser Leu Ser Val Cys Ser Ala Thr Asn Thr Arg Arg Cys
 1             5             10             15
Pro Ser Leu Trp Ala Pro Ala Ala Val Pro Ala Asp Gly Ala Val Leu
          20             25             30
Tyr Ser Leu Ile Cys Ala Ala Pro Ala Ala Cys Arg His Cys Ala Trp
      35             40             45
His Arg Gly Cys Asn Arg Thr Gln Thr Asp Ala Cys Leu Pro Trp Pro

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| | | | | | |
|---|-----|-----|-----|--|--|
| 50 | 55 | 60 | | | |
| Gly Ser Cys Ser Ala Gly Gly Val Arg Gly Gln His Ala Val Glu Glu | | | | | |
| 65 | 70 | 75 | 80 | | |
| Arg Thr Ala Asp Gly Val His Arg Gln Ala Val Val Leu Tyr Gly Ala | | | | | |
| 85 | 90 | 95 | | | |
| Ile Arg Glu Ala Pro Gln Arg Arg Glu His Arg Pro Ala Gly Asn Glu | | | | | |
| 100 | 105 | 110 | | | |
| Val Trp Ser Gly Gln Gln Glu Gly Gln Ser Arg Gly Gln Trp Gly Thr | | | | | |
| 115 | 120 | 125 | | | |
| Gly Leu Val Cys Thr Gly Gln Lys Gly Lys Ala Gly Gly Arg Val Lys | | | | | |
| 130 | 135 | 140 | | | |
| Pro Gln Gly Val Gly Gly Ser Gly Glu Ala Leu Ala Gly Ser Cys Phe | | | | | |
| 145 | 150 | 155 | 160 | | |
| Leu Gln Gln Ser Met Leu Trp Ala Tyr Pro Gly Pro Cys His Leu Gly | | | | | |
| 165 | 170 | 175 | | | |
| Ser Gln Cys Pro Tyr Leu Pro Trp Arg Asp Arg Pro His Gln Pro Ser | | | | | |
| 180 | 185 | 190 | | | |
| Val Pro Cys Ser Cys Ala Ile Ser Asn Val Lys Lys Val Ser Leu Glu | | | | | |
| 195 | 200 | 205 | | | |
| Leu Gly Gly Lys Ser Pro Leu Ile Ile Phe Ala Asp Cys Asp Leu Asn | | | | | |
| 210 | 215 | 220 | | | |
| Lys Ala Val Gln Met Gly Met Ser Ser Val Phe Phe Asn Lys Gly Glu | | | | | |
| 225 | 230 | 235 | 240 | | |
| Asn Cys Ile Ala Ala Gly Arg Leu Phe Val Glu Asp Ser Ile His Asp | | | | | |
| 245 | 250 | 255 | | | |
| Glu Phe Val Arg Arg Val Val Glu Glu Val Arg Lys Met Lys Val Gly | | | | | |
| 260 | 265 | 270 | | | |
| Asn Pro Leu Asp Arg Asp Thr Asp His Gly Pro Gln Asn His His Ala | | | | | |
| 275 | 280 | 285 | | | |
| His Leu Val Lys Leu Met Glu Tyr Cys Gln His Gly Val Lys Glu Gly | | | | | |
| 290 | 295 | 300 | | | |
| Ala Thr Leu Val Cys Gly Gly Asn Gln Val Pro Arg Pro Gly Phe Phe | | | | | |
| 305 | 310 | 315 | 320 | | |
| Phe Glu Pro Thr Val Phe Thr Asp Val Glu Asp His Met Phe Ile Ala | | | | | |
| 325 | 330 | 335 | | | |
| Lys Glu Glu Ser Phe Gly Pro Val Met Ile Ile Ser Arg Phe Ala Asp | | | | | |

340 345 350
 Gly Asp Leu Asp Ala Val Leu Ser Arg Ala Asn Ala Thr Glu Phe Gly
 355 360 365
 Leu Ala Ser Gly Val Phe Thr Arg Asp Ile Asn Lys Ala Leu Tyr Val
 370 375 380
 Ser Asp Lys Leu Gln Ala Gly Thr Val Phe Val Asn Thr Tyr Asn Lys
 385 390 395 400
 Thr Asp Val Ala Ala Pro Phe Gly Gly Phe Glu Gln Ser Gly Phe Gly
 405 410 415
 Lys Asp Leu Gly Asn Leu Leu Leu Pro Val Gly Leu Leu Ser Phe Ile
 420 425 430
 His Ser Thr Asn Ile Cys Ser Lys Pro Leu Arg Ala Arg Ser Tyr Leu
 435 440 445
 Arg Cys Arg Asp Val Ala Leu Asn Met Met Ala Val Arg Val Arg Phe
 450 455 460
 Leu Leu Gly Gly Asn Leu
 465 470

<210> 2690

<211> 236

<212> PRT

<213> Homo sapiens

<400> 2690

Met Pro Leu Trp Thr Ser Tyr Thr Val Ser Lys Gln Ala Glu Val Ser
 1 5 10 15
 Ser Val Pro Asp His Leu Thr Ser Cys Val Arg Pro Asp Val Arg Val
 20 25 30
 Ser Pro Ser Phe Ser Gln Asn Cys Leu Ala Tyr Lys Asn Asp Lys Gln
 35 40 45
 Met Ser Tyr Gly Phe Leu Phe Pro Pro Tyr Leu Ser Ser Ser Pro Glu
 50 55 60
 Ala Lys Tyr Asp Ala Phe Leu Val Thr Asn Met Val Pro Met Tyr Pro
 65 70 75 80
 Ala Phe Lys Arg Val Trp Asn Tyr Phe Gln Arg Val Leu Val Lys Lys

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Tyr Ala Ser Glu Arg Asn Gly Val Asn Val Ile Ser Gly Pro Ile Phe | | | |
| 100 | 105 | 110 | |
| Asp Tyr Asp Tyr Asp Gly Leu His Val Thr Glu Asp Lys Ile Lys Gln | | | |
| 115 | 120 | 125 | |
| Tyr Val Glu Gly Ser Ser Ile Pro Val Pro Thr His Tyr Tyr Ser Ile | | | |
| 130 | 135 | 140 | |
| Ile Thr Ser Cys Leu Asp Phe Thr Gln Pro Ala Asp Lys Cys Asp Gly | | | |
| 145 | 150 | 155 | 160 |
| Pro Leu Ser Val Ser Ser Phe Ile Leu Pro His Arg Pro Asp Asn Glu | | | |
| 165 | 170 | 175 | |
| Glu Ser Cys Asn Ser Ser Glu Asp Glu Ser Lys Trp Val Glu Glu Leu | | | |
| 180 | 185 | 190 | |
| Met Lys Met His Thr Ala Arg Val Arg Asp Ile Glu His Leu Thr Ser | | | |
| 195 | 200 | 205 | |
| Leu Asp Phe Phe Arg Lys Thr Ser Arg Ser Tyr Pro Glu Ile Leu Thr | | | |
| 210 | 215 | 220 | |
| Leu Lys Thr Tyr Leu His Thr Tyr Glu Ser Glu Ile | | | |
| 225 | 230 | 235 | |

<210> 2691

<211> 590

<212> PRT

<213> Homo sapiens

<400> 2691

| | | | |
|---|----|----|----|
| Met Val Ala Val Ser Ser Val Ser His Ala Glu Gly Asn Pro Thr Phe | | | |
| 1 | 5 | 10 | 15 |
| Pro Glu Arg Lys Arg Asn Leu Glu Arg Pro Thr Pro Lys Tyr Thr Lys | | | |
| 20 | 25 | 30 | |
| Val Gly Glu Arg Leu Arg His Val Ile Pro Gly His Met Ala Cys Ser | | | |
| 35 | 40 | 45 | |
| Met Ala Cys Gly Gly Arg Ala Cys Lys Tyr Glu Asn Pro Ala Arg Trp | | | |
| 50 | 55 | 60 | |

Ser Glu Gln Glu Gln Ala Ile Lys Gly Val Tyr Ser Ser Trp Val Thr
 65 70 75 80
 Asp Asn Ile Leu Ala Met Ala Arg Pro Ser Ser Glu Leu Leu Glu Lys
 85 90 95
 Tyr His Ile Ile Asp Gln Phe Leu Ser His Gly Ile Lys Thr Ile Ile
 100 105 110
 Asn Leu Gln Arg Pro Gly Glu His Ala Ser Cys Gly Asn Pro Leu Glu
 115 120 125
 Gln Glu Ser Gly Phe Thr Tyr Leu Pro Glu Ala Phe Met Glu Ala Gly
 130 135 140
 Ile Tyr Phe Tyr Asn Leu Gly Trp Lys Asp Tyr Gly Val Ala Ser Leu
 145 150 155 160
 Thr Thr Ile Leu Asp Met Val Lys Val Met Thr Phe Ala Leu Gln Glu
 165 170 175
 Gly Lys Val Ala Ile His Cys His Ala Gly Leu Gly Arg Thr Gly Val
 180 185 190
 Leu Ile Ala Cys Tyr Leu Val Phe Ala Thr Arg Met Thr Ala Asp Gln
 195 200 205
 Ala Ile Ile Phe Val Arg Ala Lys Arg Pro Asn Ser Ile Gln Thr Arg
 210 215 220
 Gly Gln Leu Leu Cys Val Arg Glu Phe Thr Gln Phe Leu Thr Pro Leu
 225 230 235 240
 Arg Asn Ile Phe Ser Cys Cys Asp Pro Lys Ala His Ala Val Thr Leu
 245 250 255
 Pro Gln Tyr Leu Ile Arg Gln Arg His Leu Leu His Gly Tyr Glu Ala
 260 265 270
 Arg Leu Leu Lys His Val Pro Lys Ile Ile His Leu Val Cys Lys Leu
 275 280 285
 Leu Leu Asp Leu Ala Glu Asn Arg Pro Val Met Met Lys Asp Val Ser
 290 295 300
 Glu Gly Pro Gly Leu Ser Ala Glu Ile Glu Lys Thr Met Ser Glu Met
 305 310 315 320
 Val Thr Met Gln Leu Asp Lys Glu Leu Leu Arg His Asp Ser Asp Val
 325 330 335
 Ser Asn Pro Pro Asn Pro Thr Ala Val Ala Ala Asp Phe Asp Asn Arg
 340 345 350

Gly Met Ile Phe Ser Asn Glu Gln Gln Phe Asp Pro Leu Trp Lys Arg
 355 360 365
 Arg Asn Val Glu Cys Leu Gln Pro Leu Thr His Leu Lys Arg Arg Leu
 370 375 380
 Ser Tyr Ser Asp Ser Asp Leu Lys Arg Ala Glu Asn Leu Leu Glu Gln
 385 390 395 400
 Gly Glu Thr Pro Gln Thr Val Pro Ala Gln Ile Leu Val Gly His Lys
 405 410 415
 Pro Arg Gln Gln Lys Leu Ile Ser His Cys Tyr Ile Pro Gln Ser Pro
 420 425 430
 Glu Pro Asp Leu His Lys Glu Ala Leu Val Arg Ser Thr Leu Ser Phe
 435 440 445
 Trp Ser Gln Ser Lys Phe Gly Gly Leu Glu Gly Leu Lys Asp Asn Gly
 450 455 460
 Ser Pro Ile Phe His Gly Arg Ile Ile Pro Lys Glu Ala Gln Gln Ser
 465 470 475 480
 Gly Ala Phe Ser Ala Asp Val Ser Gly Ser His Ser Pro Gly Glu Pro
 485 490 495
 Val Ser Pro Ser Phe Ala Asn Val His Lys Asp Pro Asn Pro Ala His
 500 505 510
 Gln Gln Val Ser His Cys Gln Cys Lys Thr His Gly Val Gly Ser Pro
 515 520 525
 Gly Ser Val Arg Gln Asn Ser Arg Thr Pro Arg Ser Pro Leu Asp Cys
 530 535 540
 Gly Ser Ser Pro Lys Ala Gln Phe Leu Val Glu His Glu Thr Gln Asp
 545 550 555 560
 Ser Lys Asp Leu Ser Glu Ala Ala Ser His Ser Ala Leu Gln Ser Glu
 565 570 575
 Leu Ser Ala Glu Ala Arg Arg Ile Leu Ala Ala Lys Ala Leu
 580 585 590

<210> 2692

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2692

Met Val Ile Cys His Ala Pro Leu Glu Val Cys Gly Pro Phe Phe Phe
 1 5 10 15
 Phe Leu Phe Phe Phe Ser Phe Gly Gly Gly Gly Thr Glu Ser Arg Ser
 20 25 30
 Val Thr Gln Ala Gly Val Gln Trp His Val Leu Gly Ser Leu Gln Pro
 35 40 45
 Leu Pro Pro Gly Phe Lys Gln Phe Phe Cys Leu Ile Leu Leu Ser Ser
 50 55 60
 Trp Asp Tyr Arg Cys Met Pro Pro His Leu Ala Asn Phe Cys Ile Phe
 65 70 75 80
 Ser Arg Asp Gly Val Ser Pro Tyr Trp Pro Asp Trp Ser Arg Asn Pro
 85 90 95
 Asp Leu Val Ile Cys Pro Pro Arg Pro Pro Lys Val Leu Gly Leu Gln
 100 105 110
 Val

<210> 2693

<211> 388

<212> PRT

<213> Homo sapiens

<400> 2693

Met Asp Thr Lys Arg Cys Phe Ala Asn Arg Phe Asp Asp Tyr Gln Gly
 1 5 10 15
 Ser Leu Leu Ala Gly Gln Cys Glu Glu Ala Val Ala Pro Leu Val Thr
 20 25 30
 Ala Thr Ile Glu Arg Ile Leu Gln Glu Leu Pro Pro Leu Gly Gly Gly
 35 40 45
 Ala Glu Ala Arg Gly Ala Thr Ala Gly Ala Ser Ala Cys Gln Gly Gly
 50 55 60
 Leu Tyr Gly Gly Val Ala Gly Val Ala Tyr Met Leu Tyr His Val Ser
 65 70 75 80

Gln Ser Pro Leu Phe Ala Thr Ala Arg Glu Arg Tyr Leu Arg Ser Ala
 85 90 95
 Lys Arg Leu Ile Asp Ala Cys Ala Arg Ala Glu Glu Trp Gly Glu Pro
 100 105 110
 Asp Ala Asp Thr Arg Ala Ala Phe Leu Leu Gly Gly Ala Gly Val Tyr
 115 120 125
 Ala Val Ala Thr Leu Val Tyr His Ala Leu Gly Arg Ser Asp Tyr Val
 130 135 140
 Gln Pro Leu Gly Lys Phe Arg Ala Leu Cys Ala Val Cys Ala Pro Val
 145 150 155 160
 Ser Phe Leu Glu Cys Gly Ser Asp Glu Leu Phe Val Gly Arg Ala Gly
 165 170 175
 Tyr Leu Cys Ala Ala Leu Val Leu Lys Gln Lys Leu Ala Gln Glu Val
 180 185 190
 Leu Thr Pro Ala Gln Ile Lys Ser Ile Cys Gln Ala Ile Leu Asp Ser
 195 200 205
 Gly Lys Gln Tyr Ala Ile Lys Lys Arg Lys Pro Phe Pro Leu Met Tyr
 210 215 220
 Ser Tyr Tyr Gly Thr Glu Tyr Leu Gly Ala Ala His Gly Leu Ser Ser
 225 230 235 240
 Ile Leu Gln Met Leu Leu Ser Tyr His Glu His Leu Lys Pro Ser Asp
 245 250 255
 Arg Glu Leu Val Trp Gln Ser Val Asp Phe Leu Met Glu Gln Glu Gln
 260 265 270
 Asn Cys Asn Trp Pro Pro Glu Leu Gly Glu Thr Ile Glu Arg Glu Asn
 275 280 285
 Glu Leu Val His Trp Cys His Gly Ala Pro Gly Ile Ala Tyr Leu Phe
 290 295 300
 Ala Lys Ala Tyr Leu Val Ser Lys Lys Pro Gln Tyr Leu Asp Thr Cys
 305 310 315 320
 Ile Arg Cys Gly Glu Leu Thr Trp Gln Lys Gly Leu Leu Lys Lys Gly
 325 330 335
 Pro Gly Ile Cys His Gly Val Ala Gly Ser Ala Tyr Val Phe Leu Leu
 340 345 350
 Leu Tyr Arg Leu Thr Gly Asn Ser Lys Tyr Ile Tyr Arg Ala Gln Ser
 355 360 365

Ser Phe Pro Val Asn Leu Ile Lys Met Glu His Leu Leu Tyr Thr Arg
 370 375 380

Gln His Cys Phe
 385

<210> 2694

<211> 240

<212> PRT

<213> Homo sapiens

<400> 2694

Met Arg Ile Lys Val Gln Ala Thr Glu Gln Met Ala Tyr Cys Pro Ile
 1 5 10 15
 Gln Cys Glu Lys Leu Cys Tyr Leu Pro Gly Asn Ser Lys Cys Ser Ser
 20 25 30
 Val Tyr Glu Asn Cys Leu Glu Gln Ser Arg Ala Ile Gly Asn Val His
 35 40 45
 Pro Arg Gly Val Gln Ser Gln Arg Asp Thr Ser Leu Leu Lys His Thr
 50 55 60
 Cys Arg Val Asp Leu Phe Asp Asp Pro Cys Tyr Ile Asn Thr Gln Ala
 65 70 75 80
 Leu Gln Ser Thr Pro Gly Ser Ala Gly Asn Gln Arg Ser Ala Gln Pro
 85 90 95
 Leu Gly Ser Pro Trp His Cys Gly Lys Ala Pro Glu Thr Val Gln Pro
 100 105 110
 Gly Ala Thr Ala Gln Pro Ala Ser Ser His Ser Leu Pro His Ile Lys
 115 120 125
 Gln Gln Leu Trp Ser Glu Glu Cys Tyr His Gly Lys Leu Ser Arg Lys
 130 135 140
 Ala Ala Glu Ser Leu Leu Val Lys Asp Gly Asp Phe Leu Val Arg Glu
 145 150 155 160
 Ser Ala Thr Ser Pro Gly Gln Tyr Val Leu Ser Gly Leu Gln Gly Gly
 165 170 175
 Gln Ala Lys His Leu Leu Leu Val Asp Pro Glu Gly Lys Val Arg Thr
 180 185 190

Lys Asp His Val Phe Asp Asn Val Gly His Leu Ile Arg Tyr His Met
 195 200 205
 Asp Asn Ser Leu Pro Ile Ile Ser Ser Gly Ser Glu Val Ser Leu Lys
 210 215 220
 Gln Pro Val Arg Lys Asp Asn Asn Pro Ala Leu Leu His Ser Asn Lys
 225 230 235 240

<210> 2695

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2695

Met Asn His Pro Phe Gln Gly Ser His Arg Gln Thr Pro Asp Phe Gly
 1 5 10 15
 Glu His Leu Ala Leu Leu Pro Pro Pro Pro Ser Ser Leu Pro Pro Pro
 20 25 30
 Met Pro Phe Pro Tyr Pro Leu Pro Gln Pro Ser Pro Pro Pro Leu Phe
 35 40 45
 Pro Pro Leu Pro Gln Asp Thr Pro Phe Phe Pro Gly Gln Pro Phe Pro
 50 55 60
 Pro His Glu Phe Phe Asn Tyr Asn Pro Val Glu Asp Phe Ser Met Pro
 65 70 75 80
 Pro His Leu Gly Cys Gly Pro Gly Val Asn Phe Val Pro Gly Pro Leu
 85 90 95
 Pro Pro Pro Ile Pro Gly Pro Asn Pro His Gly Gln His Trp Gly Pro
 100 105 110
 Val Val His Arg Gly Met Pro Arg Tyr Val Pro Asn Ser Pro Tyr His
 115 120 125
 Val Arg Arg Met Gly Gly Pro Cys Arg Gln Arg Leu Arg His Ser Glu
 130 135 140
 Arg Leu Ile His Thr Tyr Lys Leu Asp Arg Arg Pro Pro Ala His Ser
 145 150 155 160
 Gly Thr Trp Pro Gly
 165

<210> 2696

<211> 333

<212> PRT

<213> Homo sapiens

<400> 2696

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Met Thr Leu Glu Leu Gly Gly Lys Val Thr Ile Glu Cys Ala Lys Asn
  1             5             10            15
Asn Phe Gln Ala Gln Leu Glu Phe Lys Leu Lys Pro Phe Phe Gly Gly
      20             25             30
Ser Thr Ser Ile Asn Gln Ile Ser Gly Lys Ile Thr Ser Gly Glu Glu
      35             40             45
Val Leu Ala Ser Leu Ser Gly His Trp Asp Arg Asp Val Phe Ile Lys
      50             55             60
Glu Glu Gly Ser Gly Ser Ser Ala Leu Phe Trp Thr Pro Ser Gly Glu
      65             70             75            80
Val Arg Arg Gln Arg Leu Arg Gln His Thr Val Pro Leu Glu Glu Gln
      85             90            95
Thr Glu Leu Glu Ser Glu Arg Leu Trp Gln His Val Thr Arg Ala Ile
      100            105            110
Ser Lys Gly Asp Gln His Arg Ala Thr Gln Glu Lys Phe Ala Leu Glu
      115            120            125
Glu Ala Gln Arg Gln Arg Ala Arg Glu Arg Gln Glu Ser Leu Met Pro
      130            135            140
Trp Lys Pro Gln Leu Phe His Leu Asp Pro Ile Thr Gln Glu Trp His
      145            150            155            160
Tyr Arg Tyr Glu Asp His Ser Pro Trp Asp Pro Leu Lys Asp Ile Ala
      165            170            175
Gln Phe Glu Gln Asp Gly Ile Leu Arg Thr Leu Gln Gln Glu Ala Val
      180            185            190
Ala Arg Gln Thr Thr Phe Leu Gly Ser Pro Gly Pro Arg His Glu Arg
      195            200            205
Ser Gly Pro Asp Gln Arg Leu Arg Lys Ala Ser Asp Gln Pro Ser Gly
      210            215            220

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Gln | Thr | Thr | Glu | Ser | Ser | Gly | Ser | Thr | Pro | Glu | Ser | Cys | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Leu | Ser | Asp | Glu | Glu | Gln | Asp | Gly | Asp | Phe | Val | Pro | Gly | Gly | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Pro | Cys | Pro | Arg | Cys | Arg | Lys | Glu | Ala | Arg | Arg | Leu | Gln | Ala | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| His | Glu | Ala | Ile | Leu | Ser | Ile | Arg | Glu | Ala | Gln | Gln | Glu | Leu | His | Arg |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| His | Leu | Ser | Ala | Met | Leu | Ser | Ser | Thr | Ala | Arg | Ala | Ala | Gln | Ala | Pro |
| 290 | | | | | | 295 | | | | 300 | | | | | |
| Thr | Pro | Gly | Leu | Leu | Gln | Ser | Pro | Arg | Ser | Trp | Phe | Leu | Leu | Cys | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Phe | Leu | Ala | Cys | Gln | Leu | Phe | Ile | Asn | His | Ile | Leu | Lys | | | |
| | | | | 325 | | | | | 330 | | | | | | |

<210> 2697

<211> 504

<212> PRT

<213> Homo sapiens

<400> 2697

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Ala | Leu | Leu | Ile | Pro | Glu | Ser | Glu | Glu | Gln | Gly | Asn | Lys | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ile | His | Gln | Ile | Lys | Gln | Thr | Val | Pro | Ile | His | Ala | Ala | Asn | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Ile | Met | His | Pro | His | Pro | Pro | Gln | Glu | Pro | Ser | Ala | Asp | Lys | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Asn | Arg | Arg | Arg | Leu | Arg | Leu | Lys | Ser | Thr | Ser | Arg | Glu | Arg | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Thr | Pro | Ser | Gly | Ser | Ser | Ser | Gly | Asn | Asn | Arg | Ile | Glu | Asp | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Ser | Thr | Ile | Leu | Thr | Thr | Val | Ser | Gln | Gln | Gly | Ala | Glu | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asn | Ser | Gly | Thr | Leu | Gly | Pro | Gln | Ser | Pro | Asp | Gln | Ser | Asp | Glu | Trp |

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Ile Phe Pro Glu Asn Ala Asp His Ile Ser Tyr Leu Ala Ser Ser Arg | | |
| 115 | 120 | 125 |
| Gln Ser Leu Leu Leu Gly Asp Asp Ser Cys Asn Pro Ser His Leu Trp | | |
| 130 | 135 | 140 |
| Leu Glu Ala Ser Lys Glu Ser Glu His Asp Gln Gln Ala Glu Glu Ser | | |
| 145 | 150 | 155 |
| Gln Ser Val Pro Lys Asp Ile Phe Thr Phe Ser Ser Arg Pro Arg Ser | | |
| 165 | 170 | 175 |
| Ala Pro His Gly Lys Thr Gln Thr Met Ser Pro Glu Glu Leu Ser Phe | | |
| 180 | 185 | 190 |
| Ile Leu Asp Leu Lys Glu Asp Asn Ser Val Thr Ser Arg Asp Thr Gln | | |
| 195 | 200 | 205 |
| Ser Glu Asp Asp Phe Tyr Gly Gly Asp Ser Ser Glu Glu Gly Asn His | | |
| 210 | 215 | 220 |
| Ser Ile Gln Gly Ser Arg Gly Pro Thr Thr Gly Pro Ser Glu Leu Thr | | |
| 225 | 230 | 235 |
| Gln Leu Thr Leu Glu Ser Leu Leu Gly Lys Ala Ala Lys Arg Thr Ser | | |
| 245 | 250 | 255 |
| Lys Glu Tyr Leu Arg Ser Ala Tyr Thr Glu Ala Gly Ala Thr Glu Ser | | |
| 260 | 265 | 270 |
| Gln Asp Ser Ser Met Glu Gln Ile Asp Arg Asn Asn Phe Glu Met Ser | | |
| 275 | 280 | 285 |
| Leu Leu Pro Thr Thr Cys Leu Ser Pro Thr Gly Arg Arg Cys Gly Ser | | |
| 290 | 295 | 300 |
| Cys Gln Lys Thr Pro Glu Pro Val Ile Lys Ala Lys Asp Leu Ser Ala | | |
| 305 | 310 | 315 |
| Gln Gln Val Pro Ala Ser Leu Asn Lys Thr Ser Leu Lys Glu Ile Ser | | |
| 325 | 330 | 335 |
| Gly Glu Arg Leu Ser Ser Ile Pro Glu Ala Ser Glu Tyr Asp Trp Arg | | |
| 340 | 345 | 350 |
| Asn Tyr Gln Pro Ser Gln Met Ser Glu Ser Glu Leu Gln Met Leu Ala | | |
| 355 | 360 | 365 |
| Ser Leu Arg Trp Gln Gln Asn Glu Glu Leu Glu Asp Ala Gly Thr Ser | | |
| 370 | 375 | 380 |
| His Gly Leu Ser Ala Ser Gln Val Asp Asn Cys Asn Val Ser Ile Ser | | |

385 390 395 400
 Thr Ser Ser Asp Asp Thr Thr Thr Trp Asn Ser Cys Leu Pro Pro Pro
 405 410 415
 Val Asn Gln Gly Arg His Tyr Gln Lys Glu Met Asn Pro Pro Ser Pro
 420 425 430
 Ser Asn Pro Arg Asp Trp Leu Asn Met Leu Ser Pro Pro Ile Val Pro
 435 440 445
 Pro Ser Gln Gln Pro Ala Glu Gln Arg Pro Asp Ser Cys Glu Ser Leu
 450 455 460
 Ser Val Gln Gly Glu Glu Asp Leu Ser Val Glu Glu Asp Glu Glu Val
 465 470 475 480
 Leu Thr Leu Leu Tyr Asp Pro Cys Leu Asn Cys Tyr Phe Asp Pro Gln
 485 490 495
 Thr Gly Lys Tyr Tyr Glu Leu Val
 500

<210> 2698

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2698

Met Leu Val Phe Thr Ser Pro Gln Ala Leu Phe Gly Phe Gln His Asp
 1 5 10 15
 Ala Ser Asn His Thr Ile Val Gly Leu Gly Pro Asn Pro Val Pro Glu
 20 25 30
 Met Lys Glu Thr Thr Leu Gln Ala Pro Gln Pro Pro Gln Ala Pro Gln
 35 40 45
 Pro Leu Gln Pro Arg Lys Lys Arg Val Arg Arg Thr Thr Gln Leu Arg
 50 55 60
 Arg Thr Thr Gly Ala Pro Asp Ile Thr Trp Gly Met Leu Lys Lys Thr
 65 70 75 80
 Thr Gln Glu Ala Glu Arg Ile Leu Leu Arg Thr Gln Thr Pro Phe Thr
 85 90 95
 Pro Glu Asn Leu Phe Leu Ala Met Leu Ser Val Val His Cys Asn Ser

100 105 110
 Arg Lys Asp Val Lys Pro Glu Asn Lys Gln
 115 120

<210> 2699

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2699

Met Ile Ile Ile Leu Arg Leu Gly His Phe Val Phe Glu Cys Gly Ala
 1 5 10 15
 Ala Glu Leu Ile Gln Lys Pro Phe Ala Ala Tyr Gln Asp Phe Leu Lys
 20 25 30
 Lys Phe Phe Cys Leu Cys Leu Pro Ser Gly Thr Leu Pro Trp Arg His
 35 40 45
 Arg Gly Pro Arg Ala Lys Ala Leu Pro Gly His Leu Gln Asn Thr Pro
 50 55 60
 Cys Val Cys Val Cys Val Cys Val Cys Val Cys Val Cys Val Cys Thr
 65 70 75 80
 Leu Gln Pro Pro Arg Trp Arg Gly Ser Val Trp Ile Thr Val Asn Ala
 85 90 95
 Leu Pro His Trp Ser Val Gly Asp Thr Val Thr Asn Pro Leu Lys Ser
 100 105 110
 Trp

<210> 2700

<211> 154

<212> PRT

<213> Homo sapiens

<400> 2700

Met Ala Ala Thr Thr Leu Ser Gly Leu Leu Gln Cys Asn Phe Leu Thr

| | | | |
|---|-----|-----|----|
| 1 | 5 | 10 | 15 |
| Met Asp Ser Pro Met Gln Ile His Phe Glu Gln Leu Cys Lys Thr Lys | | | |
| 20 | 25 | 30 | |
| Leu Pro Lys Lys Arg Lys Arg Asp Pro Gly Ser Val Gly Asp Thr Ile | | | |
| 35 | 40 | 45 | |
| Pro Ser Ala Glu Leu Val Lys Arg His Ala Gly Val Leu Gly Leu Gly | | | |
| 50 | 55 | 60 | |
| Ala Cys Val Leu Ser Ser Pro Tyr Asp Val Pro Thr Trp Met Pro Gln | | | |
| 65 | 70 | 75 | 80 |
| Leu Leu Met Asn Leu Ser Ala His Leu Asn Asp Pro Gln Pro Ile Glu | | | |
| 85 | 90 | 95 | |
| Met Thr Val Lys Lys Pro Tyr Pro Ile Ser Glu Gly Leu Thr Met Thr | | | |
| 100 | 105 | 110 | |
| Thr Gly Arg Asn Ile Asn Ser Asn Ser Leu Met Thr Asn Cys Leu Phe | | | |
| 115 | 120 | 125 | |
| Ser Pro Ile Phe Leu Cys His His Ala Ile Met His Arg Lys Val Ser | | | |
| 130 | 135 | 140 | |
| Gln Gln Ser Ser Glu Phe Thr Leu Val Trp | | | |
| 145 | 150 | | |

<210> 2701

<211> 404

<212> PRT

<213> Homo sapiens

<400> 2701

| | | | |
|---|----|----|----|
| Met Ile Thr Glu Ala Leu Ala Gln Gly Gly Met His Ile Arg Ala Arg | | | |
| 1 | 5 | 10 | 15 |
| Phe Pro Pro Thr Thr Ala Val Ser Ala Ile Pro Ser Ser Ser Ile Pro | | | |
| 20 | 25 | 30 | |
| Leu Gly Arg Gln Pro Met Ala Gln Val Ser Gln Ser Ser Leu Pro Met | | | |
| 35 | 40 | 45 | |
| Leu Ser Ser Pro Ser Pro Gly Gln Gln Val Gln Thr Pro Gln Ser Met | | | |
| 50 | 55 | 60 | |
| Pro Pro Pro Pro Gln Pro Ser Pro Gln Pro Gly Gln Pro Ser Ser Gln | | | |

| | | | |
|---|-----|-----|-----|
| 65 | 70 | 75 | 80 |
| Pro Asn Ser Asn Val Ser Ser Gly Pro Ala Pro Ser Pro Ser Ser Phe | | | |
| | 85 | 90 | 95 |
| Leu Pro Ser Pro Ser Pro Gln Pro Ser Gln Ser Pro Val Thr Ala Arg | | | |
| | 100 | 105 | 110 |
| Thr Pro Gln Asn Phe Ser Val Pro Ser Pro Gly Pro Leu Asn Thr Pro | | | |
| | 115 | 120 | 125 |
| Val Asn Pro Ser Ser Val Met Ser Pro Ala Gly Ser Ser Gln Ala Glu | | | |
| | 130 | 135 | 140 |
| Glu Gln Gln Tyr Leu Asp Lys Leu Lys Gln Leu Ser Lys Tyr Ile Glu | | | |
| 145 | 150 | 155 | 160 |
| Pro Leu Arg Arg Met Ile Asn Lys Ile Asp Lys Asn Glu Asp Arg Lys | | | |
| | 165 | 170 | 175 |
| Lys Asp Leu Ser Lys Met Lys Ser Leu Leu Asp Ile Leu Thr Asp Pro | | | |
| | 180 | 185 | 190 |
| Ser Lys Arg Cys Pro Leu Lys Thr Leu Gln Lys Cys Glu Ile Ala Leu | | | |
| | 195 | 200 | 205 |
| Glu Lys Leu Lys Asn Asp Met Ala Val Pro Thr Pro Pro Pro Pro Pro | | | |
| | 210 | 215 | 220 |
| Val Pro Pro Thr Lys Gln Gln Tyr Leu Cys Gln Pro Leu Leu Asp Ala | | | |
| 225 | 230 | 235 | 240 |
| Val Leu Ala Asn Ile Arg Ser Pro Val Phe Asn His Ser Leu Tyr Arg | | | |
| | 245 | 250 | 255 |
| Thr Phe Val Pro Ala Met Thr Ala Ile His Gly Pro Pro Ile Thr Ala | | | |
| | 260 | 265 | 270 |
| Pro Val Val Cys Thr Arg Lys Arg Arg Leu Glu Asp Asp Glu Arg Gln | | | |
| | 275 | 280 | 285 |
| Ser Ile Pro Ser Val Leu Gln Gly Glu Val Ala Arg Leu Asp Pro Lys | | | |
| | 290 | 295 | 300 |
| Phe Leu Val Asn Leu Asp Pro Ser His Cys Ser Asn Asn Gly Thr Val | | | |
| 305 | 310 | 315 | 320 |
| His Leu Ile Cys Lys Leu Asp Asp Lys Asp Leu Pro Ser Val Pro Pro | | | |
| | 325 | 330 | 335 |
| Leu Glu Leu Ser Val Pro Ala Asp Tyr Pro Ala Gln Ser Pro Leu Trp | | | |
| | 340 | 345 | 350 |
| Ile Asp Arg Gln Trp Gln Tyr Asp Ala Asn Pro Phe Leu Gln Ser Val | | | |

355 360 365
 His Arg Cys Met Thr Ser Arg Leu Leu Gln Leu Pro Asp Lys His Ser
 370 375 380
 Val Thr Ala Leu Leu Asn Thr Trp Ala Gln Ser Val His Gln Ala Cys
 385 390 395 400
 Leu Ser Ala Ala

<210> 2702

<211> 446

<212> PRT

<213> Homo sapiens

<400> 2702

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val
 1 5 10 15
 Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu
 20 25 30
 Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr
 35 40 45
 Gly Val Leu Trp Trp Leu Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu
 50 55 60
 Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala
 65 70 75 80
 Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe
 85 90 95
 Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu
 100 105 110
 Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe
 115 120 125
 Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp
 130 135 140
 Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn
 145 150 155 160
 Glu Gln Gly Phe Val Glu Phe Lys Ile Ser Gly Pro Leu Gln Tyr Met

| | | | |
|---|-----|-----|-----|
| | 165 | 170 | 175 |
| Trp Trp Tyr His Val Val Gly Leu Ile Trp Ile Ser Glu Phe Ile Leu | | | |
| | 180 | 185 | 190 |
| Ala Cys Gln Gln Met Thr Val Ala Gly Ala Val Val Thr Tyr Tyr Phe | | | |
| | 195 | 200 | 205 |
| Thr Arg Asp Lys Arg Asn Leu Pro Phe Thr Pro Ile Leu Ala Ser Val | | | |
| | 210 | 215 | 220 |
| Asn Arg Leu Ile Arg Tyr His Leu Gly Thr Val Ala Lys Gly Ser Phe | | | |
| 225 | 230 | 235 | 240 |
| Ile Ile Thr Leu Val Lys Ile Pro Arg Met Ile Leu Met Tyr Ile His | | | |
| | 245 | 250 | 255 |
| Ser Gln Leu Lys Gly Lys Glu Asn Ala Cys Ala Arg Cys Val Leu Lys | | | |
| | 260 | 265 | 270 |
| Ser Cys Ile Cys Cys Leu Trp Cys Leu Glu Lys Cys Leu Asn Tyr Leu | | | |
| | 275 | 280 | 285 |
| Asn Gln Asn Ala Tyr Thr Ala Thr Ala Ile Asn Ser Thr Asn Phe Cys | | | |
| | 290 | 295 | 300 |
| Thr Ser Ala Lys Asp Ala Phe Val Ile Leu Val Glu Asn Ala Leu Arg | | | |
| 305 | 310 | 315 | 320 |
| Val Ala Thr Ile Asn Thr Val Gly Asp Phe Met Leu Phe Leu Gly Lys | | | |
| | 325 | 330 | 335 |
| Val Leu Ile Val Cys Ser Thr Gly Leu Ala Gly Ile Met Leu Leu Asp | | | |
| | 340 | 345 | 350 |
| Tyr Gln Gln Asp Tyr Thr Val Trp Val Leu Pro Leu Ile Ile Val Cys | | | |
| | 355 | 360 | 365 |
| Leu Phe Ala Phe Leu Val Ala His Cys Phe Leu Ser Ile Tyr Glu Met | | | |
| | 370 | 375 | 380 |
| Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn | | | |
| 385 | 390 | 395 | 400 |
| Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu | | | |
| | 405 | 410 | 415 |
| Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly | | | |
| | 420 | 425 | 430 |
| Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg | | | |
| | 435 | 440 | 445 |

<210> 2703

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2703

```

Met Gln Ala Phe Pro Glu Gln Gln Lys Glu Ser Arg Ser Val Ala Arg
 1             5             10             15
Leu Lys Cys Tyr Gly Val Ile Ser Ala His Cys Asn Leu Arg Phe Leu
          20             25             30
Gly Ser Gly Asn Ser His Ala Ser Ala Ser Arg Val Ala Gly Ile Ala
          35             40             45
Gly Thr Cys His His Ala Gln Leu Ile Phe Val Ile Leu Val Glu Met
          50             55             60
Gly Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Asp
 65             70             75             80
Asn Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser
          85             90             95
His Cys Ala Gln Pro Lys Lys Leu Ala Phe
          100             105

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<210> 2704

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2704

```

Met Asn His Ser Arg Asn Leu Phe Phe Ile Gln Ile Ser Glu Pro Pro
 1             5             10             15
Thr Pro Glu Ile Leu Thr Tyr Trp Val Leu Gly Arg Thr Trp Lys Ser
          20             25             30
Val Phe Ile Ala Thr His Pro Gly Asp Ser Ser Arg Trp Leu Trp Cys
          35             40             45

```

Asn Ser Ser Met Gly Trp Tyr Leu Gly Ala Ser Pro Gly Val Arg Ala
 50 55 60
 Gln Val Pro His Gly Gln Glu Leu Cys Arg Pro Pro Leu Leu Thr Ser
 65 70 75 80
 Lys Trp Phe Pro Leu Val Gln Leu Glu His Glu Cys Tyr Leu Leu Ser
 85 90 95
 Pro Thr Leu Leu Leu Leu Thr Ile
 100 105

<210> 2705

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2705

Met Ser Val Val Ser Gln His Trp Arg Pro Pro Ala Gly Asn Leu Arg
 1 5 10 15
 Ser Gly Ser Gln Arg Gly Trp Phe Leu Leu Arg Pro Gly Gly Arg Leu
 20 25 30
 Leu Gln Ala Cys Leu Leu Leu Leu Gly Val Pro Ala Val Phe Gly Phe
 35 40 45
 His Thr Leu Ser Tyr Leu Thr Leu Val Pro Ala Phe Val Phe Thr Trp
 50 55 60
 Pro Phe Pro Pro Val Cys Val Cys Val Gln Ile Ser Leu Phe Ile Glu
 65 70 75 80
 Met Gln Ser Tyr Gly Ile Arg Ala Pro Pro Cys Ser Ser Met Ala Leu
 85 90 95
 Ser Glu Val Ile Thr Ser Thr Ala Thr Leu Phe Pro Asn Thr Val Thr
 100 105 110
 Phe

<210> 2706

<211> 370

<212> PRT

<213> Homo sapiens

<400> 2706

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Met Arg Leu Glu Asp Glu Ala Ala Ala Gln Ala Leu Ile Gly Gly Arg
  1             5             10             15
Asp Leu Val Val Ile Gly Phe Phe Gln Asp Leu Gln Asp Glu Asp Val
      20             25             30
Ala Thr Phe Leu Ala Leu Ala Gln Asp Ala Leu Asp Met Thr Phe Gly
      35             40             45
Leu Thr Asp Arg Pro Arg Leu Phe Gln Gln Phe Gly Leu Thr Lys Asp
      50             55             60
Thr Val Val Leu Phe Lys Lys Phe Asp Glu Gly Arg Ala Asp Phe Pro
      65             70             75             80
Val Asp Glu Glu Leu Gly Leu Asp Leu Gly Asp Leu Ser Arg Phe Leu
      85             90             95
Val Thr His Ser Met Arg Leu Val Thr Glu Phe Asn Ser Gln Thr Ser
      100            105            110
Ala Lys Ile Phe Ala Ala Arg Ile Leu Asn His Leu Leu Leu Phe Val
      115            120            125
Asn Gln Thr Leu Ala Ala His Arg Glu Leu Leu Ala Gly Phe Gly Glu
      130            135            140
Ala Ala Pro Arg Phe Arg Gly Gln Val Leu Phe Val Val Val Asp Val
      145            150            155            160
Ala Ala Asp Asn Glu His Val Leu Gln Tyr Phe Gly Leu Lys Ala Glu
      165            170            175
Ala Ala Pro Thr Leu Arg Leu Val Asn Leu Glu Thr Thr Lys Lys Tyr
      180            185            190
Ala Pro Val Asp Gly Gly Pro Val Thr Ala Ala Ser Ile Thr Ala Phe
      195            200            205
Cys His Ala Val Leu Asn Gly Gln Val Lys Pro Tyr Leu Leu Ser Gln
      210            215            220
Glu Ile Pro Pro Asp Trp Asp Gln Arg Pro Val Lys Thr Leu Val Gly
      225            230            235            240
Lys Asn Phe Glu Gln Val Ala Phe Asp Glu Thr Lys Asn Val Phe Val
      245            250            255

```


Lys Phe Tyr Ala Pro Trp Cys Thr His Cys Lys Glu Met Ala Pro Ala
 260 265 270
 Trp Glu Ala Leu Ala Glu Lys Tyr Gln Asp His Glu Asp Ile Ile Ile
 275 280 285
 Ala Glu Leu Asp Ala Thr Ala Asn Glu Leu Asp Ala Phe Ala Val His
 290 295 300
 Gly Phe Pro Thr Leu Lys Tyr Phe Pro Ala Gly Pro Gly Arg Lys Val
 305 310 315 320
 Ile Glu Tyr Lys Ser Thr Arg Asp Leu Glu Thr Phe Ser Lys Phe Leu
 325 330 335
 Asp Asn Gly Gly Val Leu Pro Thr Glu Glu Pro Pro Glu Glu Pro Ala
 340 345 350
 Ala Pro Phe Pro Glu Pro Pro Ala Asn Ser Thr Met Gly Ser Lys Glu
 355 360 365
 Glu Leu
 370

<210> 2707

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2707

Met Ser Lys Asn Cys Ile Lys Leu Leu Cys Glu Asp Pro Val Phe Ala
 1 5 10 15
 Glu Tyr Ile Lys Cys Ile Leu Met Asp Glu Arg Thr Phe Leu Asn Asn
 20 25 30
 Asn Ile Val Tyr Thr Phe Met Thr His Phe Leu Leu Lys Val Gln Ser
 35 40 45
 Gln Val Phe Ser Glu Ala Asn Cys Ala Asn Leu Ile Ser Thr Leu Ile
 50 55 60
 Thr Asn Leu Ile Ser Gln Tyr Gln Asn Leu Gln Ser Asp Phe Ser Asn
 65 70 75 80
 Arg Val Glu Ile Ser Lys Ala Ser Ala Ser Leu Asn Gly Val Arg Thr
 85 90 95

Met Gln Arg Arg Arg His Thr Leu Leu Asn Cys Pro Ser Val Asn Cys
 100 105 110
 Val Ala Phe Ile
 115

<210> 2708

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2708

Met Thr Met Tyr Lys Ser Lys Arg Arg His Gln Arg Tyr Ile Asn Met
 1 5 10 15
 Ala Gly Glu Pro Lys Pro Tyr Arg Pro Lys Pro Gly Asn Lys Arg Pro
 20 25 30
 Leu Ser Ala Leu Tyr Arg Leu Glu Ser Lys Glu Pro Phe Leu Ser Val
 35 40 45
 Gly Gly Tyr Val Phe Asp Tyr Asp Tyr Tyr Arg Asp Asp Phe Tyr Asn
 50 55 60
 Arg Leu Phe Asp Tyr His Gly Arg Val Pro Pro Pro Pro Arg Ala Val
 65 70 75 80
 Ile Pro Leu Lys Arg Pro Arg Val Ala Val Thr Thr Thr Arg Arg Gly
 85 90 95
 Lys Gly Val Phe Ser Met Lys Gly Gly Ser Arg Ser Thr Ala Ser Gly
 100 105 110
 Ser Thr Gly Ser Lys Leu Lys Ser Asp Glu Leu Gln Thr Ile Lys Lys
 115 120 125
 Glu Leu Thr Gln Ile Lys Thr Lys Ile Asp Ser Leu Leu Gly Arg Leu
 130 135 140
 Glu Lys Ile Glu Lys Gln Gln Lys Ala Glu Ala Glu Ala Gln Lys Lys
 145 150 155 160
 Gln Leu Glu Glu Ser Leu Val Leu Ile Gln Glu Glu Cys Val Ser Glu
 165 170 175
 Ile Ala Asp His Ser Thr Glu Glu Pro Ala Glu Gly Gly Pro Asp Ala
 180 185 190

Asp Gly Glu Glu Met Thr Asp Gly Ile Glu Glu Asp Phe Asp Glu Asp
 195 200 205
 Gly Gly His Glu Leu Phe Leu Gln Ile Lys
 210 215

<210> 2709

<211> 362

<212> PRT

<213> Homo sapiens

<400> 2709

Met Pro Asp Cys Pro Val Ser Leu Leu Gln Trp Leu Phe Gln Leu Leu
 1 5 10 15
 Thr Trp Pro Pro Glu Thr Ser Leu Gly Ala Phe Gly Leu Leu Trp Asp
 20 25 30
 Leu Ile Val Asp Gly Ile Phe Leu Gln Pro Asp Glu Asp Lys His Leu
 35 40 45
 Trp Cys Pro Ser Leu Gln Glu Val Arg Glu Ala Phe His Ser Leu Gly
 50 55 60
 Ala His Ser Pro Ala Leu Tyr Pro Leu Gly Pro Phe Trp His Gly Gly
 65 70 75 80
 Arg Val Leu Pro Gly Glu Ala Gly Leu Asn Glu Asn Glu Glu Gln Asp
 85 90 95
 Ala Pro Gln Glu Ile Ala Leu Asp Ile Ser Leu Gly His Ile Tyr Lys
 100 105 110
 Phe Leu Ala Leu Cys Ala Gln Ala Gln Pro Gly Ala Tyr Thr Asp Glu
 115 120 125
 Asn Leu Met Gly Leu Ile Glu Leu Leu Cys Arg Thr Ser Leu Asp Val
 130 135 140
 Gly Leu Arg Leu Leu Pro Lys Val Asp Leu Gln Gln Leu Leu Leu Leu
 145 150 155 160
 Leu Leu Glu Asn Ile Arg Glu Trp Pro Gly Lys Leu Gln Glu Leu Cys
 165 170 175
 Cys Thr Leu Ser Trp Val Ser Asp His His His Asn Leu Leu Ala Leu
 180 185 190

Val Gln Phe Phe Pro Asp Met Thr Ser Arg Ser Arg Arg Leu Arg Ser
 195 200 205
 Gln Leu Ser Leu Val Val Ile Ala Arg Met Leu Gly Gln Gln Glu Met
 210 215 220
 Leu Pro Leu Trp Gln Glu Lys Thr Gln Leu Ser Ser Leu Ser Arg Leu
 225 230 235 240
 Leu Gly Leu Met Arg Pro Ser Ser Leu Arg Gln Tyr Leu Asp Ser Val
 245 250 255
 Pro Leu Pro Pro Cys Gln Glu Gln Gln Pro Lys Ala Ser Ala Glu Leu
 260 265 270
 Asp His Lys Ala Cys Tyr Leu Cys His Ser Leu Leu Met Leu Ala Gly
 275 280 285
 Val Val Val Ser Cys Gln Asp Ile Thr Pro Asp Gln Trp Gly Glu Leu
 290 295 300
 Gln Leu Leu Cys Met Gln Leu Asp Arg His Ile Ser Thr Gln Ile Arg
 305 310 315 320
 Glu Ser Pro Gln Ala Met His Arg Thr Met Leu Lys Asp Leu Ala Thr
 325 330 335
 Gln Thr Tyr Ile Arg Trp Gln Glu Leu Leu Thr His Cys Gln Pro Gln
 340 345 350
 Ala Gln Tyr Phe Ser Pro Trp Lys Asp Ile
 355 360

<210> 2710

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2710

Met Gln Gly Gly Trp Phe Pro Arg Lys Pro Pro Asn Glu Glu Ile Val
 1 5 10 15
 Gly Asn Val Leu Gln Gly Ala Ala Ser Leu Trp Ser Gln Thr Arg Gly
 20 25 30
 Arg Ser Ile Arg Pro Asn Met Ala Gly Cys Val Ser Leu Arg Asn Ala
 35 40 45

Gly Ser Ser Ala Arg Leu Ser Ala Ile Cys Lys Met Trp Pro Lys Asn
 50 55 60
 Tyr Leu Lys Ile Asn His Ile Lys Thr Arg Ala Ser Met Asn Gln Leu
 65 70 75 80
 Leu Arg Ile Ala Val Ala Glu Lys Gly Leu Val Ser Pro Cys Phe Leu
 85 90 95
 Arg Pro Pro Ser Ser Ser Ser His Cys Gln Gly Leu Leu Ser Pro Pro
 100 105 110
 Ser Ala Phe Ser Cys Leu Ala Leu Cys His Leu Leu Trp Arg Pro His
 115 120 125
 Val Phe Ile
 130

<210> 2711

<211> 608

<212> PRT

<213> Homo sapiens

<400> 2711

Met Gly Ser Val Thr Val Arg Tyr Phe Cys Tyr Gly Cys Leu Phe Thr
 1 5 10 15
 Ser Ala Thr Trp Thr Val Leu Leu Phe Val Tyr Phe Asn Phe Ser Glu
 20 25 30
 Val Thr Gln Pro Leu Lys Asn Val Pro Val Lys Gly Ser Gly Pro His
 35 40 45
 Gly Pro Ser Pro Lys Lys Phe Tyr Pro Arg Phe Thr Arg Gly Pro Ser
 50 55 60
 Arg Val Leu Glu Pro Gln Phe Lys Ala Asn Lys Ile Asp Asp Val Ile
 65 70 75 80
 Asp Ser Arg Val Glu Asp Pro Glu Glu Gly His Leu Lys Leu Ser Ser
 85 90 95
 Glu Leu Gly Met Ile Phe Asn Glu Arg Asp Gln Glu Leu Arg Asp Leu
 100 105 110
 Gly Tyr Gln Lys His Ala Phe Asn Met Leu Ile Ser Asp Arg Leu Gly
 115 120 125

Tyr His Arg Asp Val Pro Asp Thr Arg Asn Ala Ala Cys Lys Glu Lys
 130 135 140
 Phe Tyr Pro Pro Asp Leu Pro Ala Ala Ser Val Val Ile Cys Phe Tyr
 145 150 155 160
 Asn Glu Ala Phe Ser Ala Leu Leu Arg Thr Val His Ser Val Ile Asp
 165 170 175
 Arg Thr Pro Ala His Leu Leu His Glu Ile Ile Leu Val Asp Asp Asp
 180 185 190
 Ser Asp Phe Asp Asp Leu Lys Gly Glu Leu Asp Glu Tyr Val Gln Lys
 195 200 205
 Tyr Leu Pro Gly Lys Ile Lys Val Ile Arg Asn Thr Lys Arg Glu Gly
 210 215 220
 Leu Ile Arg Gly Arg Met Ile Gly Ala Ala His Ala Thr Gly Glu Val
 225 230 235 240
 Leu Val Phe Leu Asp Ser His Cys Glu Val Asn Val Met Trp Leu Gln
 245 250 255
 Pro Leu Leu Ala Ala Ile Arg Glu Asp Arg His Thr Val Val Cys Pro
 260 265 270
 Val Ile Asp Ile Ile Ser Ala Asp Thr Leu Ala Tyr Ser Ser Ser Pro
 275 280 285
 Val Val Arg Gly Gly Phe Asn Trp Gly Leu His Phe Lys Trp Asp Leu
 290 295 300
 Val Pro Leu Ser Glu Leu Gly Arg Ala Glu Gly Ala Thr Ala Pro Ile
 305 310 315 320
 Lys Ser Pro Thr Met Ala Gly Gly Leu Phe Ala Met Asn Arg Gln Tyr
 325 330 335
 Phe His Glu Leu Gly Gln Tyr Asp Ser Gly Met Asp Ile Trp Gly Gly
 340 345 350
 Glu Asn Leu Glu Ile Ser Phe Arg Ile Trp Met Cys Gly Gly Lys Leu
 355 360 365

 Phe Ile Ile Pro Cys Ser Arg Val Gly His Ile Phe Arg Lys Arg Arg
 370 375 380
 Pro Tyr Gly Ser Pro Glu Gly Gln Asp Thr Met Thr His Asn Ser Leu
 385 390 395 400
 Arg Leu Ala His Val Trp Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 405 | | 410 | | 415 | | | | | | | | | | |
| Leu | Arg | Pro | Asp | Leu | Lys | Thr | Lys | Ser | Tyr | Gly | Asn | Ile | Ser | Glu | Arg |
| | 420 | | 425 | | 430 | | | | | | | | | | |
| Val | Glu | Leu | Arg | Lys | Lys | Leu | Gly | Cys | Lys | Ser | Phe | Lys | Trp | Tyr | Leu |
| | 435 | | 440 | | 445 | | | | | | | | | | |
| Asp | Asn | Val | Tyr | Pro | Glu | Met | Gln | Ile | Ser | Gly | Ser | His | Ala | Lys | Pro |
| | 450 | | 455 | | 460 | | | | | | | | | | |
| Gln | Gln | Pro | Ile | Phe | Val | Asn | Arg | Gly | Pro | Lys | Arg | Pro | Lys | Val | Leu |
| 465 | | | 470 | | 475 | | | | | | | | | | 480 |
| Gln | Arg | Gly | Arg | Leu | Tyr | His | Leu | Gln | Thr | Asn | Lys | Cys | Leu | Val | Ala |
| | 485 | | 490 | | 495 | | | | | | | | | | |
| Gln | Gly | Arg | Pro | Ser | Gln | Lys | Gly | Gly | Leu | Val | Val | Leu | Lys | Ala | Cys |
| | 500 | | 505 | | 510 | | | | | | | | | | |
| Asp | Tyr | Ser | Asp | Pro | Asn | Gln | Ile | Trp | Ile | Tyr | Asn | Glu | Glu | His | Glu |
| | 515 | | 520 | | 525 | | | | | | | | | | |
| Leu | Val | Leu | Asn | Ser | Leu | Leu | Cys | Leu | Asp | Met | Ser | Glu | Thr | Arg | Ser |
| | 530 | | 535 | | 540 | | | | | | | | | | |
| Ser | Asp | Pro | Pro | Arg | Leu | Met | Lys | Cys | His | Gly | Ser | Gly | Gly | Ser | Gln |
| 545 | | | 550 | | 555 | | | | | | | | | | 560 |
| Gln | Trp | Thr | Phe | Gly | Lys | Asn | Asn | Arg | Leu | Tyr | Gln | Val | Ser | Val | Gly |
| | 565 | | 570 | | 575 | | | | | | | | | | |
| Gln | Cys | Leu | Arg | Ala | Val | Asp | Pro | Leu | Gly | Gln | Lys | Gly | Ser | Val | Ala |
| | 580 | | 585 | | 590 | | | | | | | | | | |
| Met | Ala | Ile | Cys | Asp | Gly | Ser | Ser | Ser | Gln | Gln | Trp | His | Leu | Glu | Gly |
| | 595 | | 600 | | 605 | | | | | | | | | | |

<210> 2712

<211> 360

<212> PRT

<213> Homo sapiens

<400> 2712

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Leu | Phe | Ser | Val | Arg | Lys | Ala | Arg | Glu | Cys | Trp | Arg | Phe | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ala | Leu | His | Lys | Gly | Pro | Ala | Ala | Thr | Leu | Ala | Pro | Gln | Lys | Glu |

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Leu His | | |
| 35 | 40 | 45 |
| Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Val Asn Leu Gln Glu | | |
| 50 | 55 | 60 |
| Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val Asp Leu His Ser Ile Thr | | |
| 65 | 70 | 75 |
| Val Pro Gln Asp Pro Thr Val Leu Gln Gln Ser Ile Leu Asp Met Thr | | |
| 85 | 90 | 95 |
| Ala Val Leu Leu Ala Cys Gly Ile Asn Pro Glu Lys Ser Ile Leu Phe | | |
| 100 | 105 | 110 |
| Gln Gln Ser Lys Val Ser Glu His Thr Gln Leu Ser Trp Ile Leu Thr | | |
| 115 | 120 | 125 |
| Cys Met Val Arg Leu Pro Arg Leu Gln His Leu His Gln Trp Lys Ala | | |
| 130 | 135 | 140 |
| Lys Ala Ala Lys Gln Lys His Asp Gly Thr Val Gly Leu Leu Thr Tyr | | |
| 145 | 150 | 155 |
| Pro Val Leu Gln Ala Ala Asp Ile Leu Cys Tyr Lys Ser Thr His Val | | |
| 165 | 170 | 175 |
| Pro Val Gly Glu Asp Gln Val Gln His Met Glu Leu Val Gln Asp Leu | | |
| 180 | 185 | 190 |
| Ala Arg Ser Phe Asn Gln Lys Tyr Gly Glu Phe Phe Pro Leu Pro Lys | | |
| 195 | 200 | 205 |
| Ser Ile Leu Thr Ser Met Lys Lys Val Lys Ser Leu Arg Asp Pro Ser | | |
| 210 | 215 | 220 |
| Ser Lys Met Ser Lys Ser Asp Pro Asp Lys Leu Ala Thr Val Arg Ile | | |
| 225 | 230 | 235 |
| Thr Asp Ser Pro Glu Glu Ile Val Gln Lys Phe Arg Lys Ala Val Thr | | |
| 245 | 250 | 255 |
| Asp Phe Thr Ser Glu Val Thr Tyr Glu Pro Asp Ser Arg Ala Gly Val | | |
| 260 | 265 | 270 |
| Ser Asn Met Val Ala Ile His Ala Ala Val Ser Gly Leu Ser Val Glu | | |
| 275 | 280 | 285 |
| Glu Val Val Arg Ser Ser Ala Gly Leu Asp Thr Ala Arg Tyr Lys Leu | | |
| 290 | 295 | 300 |
| Leu Val Ala Asp Ala Val Ile Glu Lys Phe Ala Pro Ile Arg Lys Glu | | |

305 310 315 320
 Ile Glu Lys Leu Lys Met Asp Lys Asp His Leu Arg Lys Val Leu Leu
 325 330 335
 Val Gly Ser Ala Lys Ala Lys Glu Leu Ala Ser Pro Val Phe Glu Glu
 340 345 350
 Val Lys Lys Leu Val Gly Ile Leu
 355 360

<210> 2713

<211> 295

<212> PRT

<213> Homo sapiens

<400> 2713

Met Gln Met Ser Val Pro Cys Val Leu Ser Ser Leu Gln Asn His Glu
 1 5 10 15
 Pro Asn Lys Pro Leu Phe Thr Thr Gln Ser Gln Leu Leu Ser Lys Val
 20 25 30
 Leu Glu Val Leu Asp Pro Asp Arg Lys Leu Glu Asp Thr Trp Ala Tyr
 35 40 45
 Cys Gln Asp Thr Arg Lys Gly Met Lys Glu Pro Thr Lys Leu Leu Lys
 50 55 60
 Lys His Ser Thr Gln Val Tyr Leu Gly Pro Ser Lys Lys Thr Ser Val
 65 70 75 80
 Ser Asn Ala Gly Gln Trp Leu Tyr Glu Glu Lys Pro His Lys Met Asp
 85 90 95
 Leu Leu His Glu Asn Gly Pro Arg Pro Gly Leu His Glu Asn Val Cys
 100 105 110
 Lys Ala Val Ser Asp Phe Cys Lys Trp Val Thr Thr Phe Gly Ile Ser
 115 120 125
 Asp Ile Asp Glu Glu Phe Ile Leu Lys Gln Phe Asp Ile Asp Tyr Glu
 130 135 140
 Thr Lys Pro Ser His Asp Ala Leu His Thr Met Lys Leu Asn Gln Val
 145 150 155 160
 Pro Leu Glu Leu Lys Arg Ser Val Gly Leu Ser Lys Leu Gln Lys Thr

165 170 175
 Glu Phe Phe Gln Lys Leu Gly Tyr Glu Arg Lys Leu Gln Lys Pro Gln
 180 185 190
 Asn Pro Tyr Lys Pro Lys Trp Val Lys Met Arg Tyr Gly Ala Trp Tyr
 195 200 205
 Leu Asn Pro Lys Leu Trp Lys Lys Gln Arg Val Asp Glu Pro Leu Val
 210 215 220
 Asp Pro Glu Val Ser His Lys Ala Gln Glu Glu Asn Phe Lys Lys Glu
 225 230 235 240
 Leu Gln Glu Gln Glu Glu Leu Leu Ala Asp Leu His Gly Thr Val Ala
 245 250 255
 Phe Lys Asp Phe Ile Leu Ser Arg Gly Tyr Arg Met Pro Arg Phe Leu
 260 265 270
 Glu Asn Met Tyr Ile Gly Lys Glu Cys Lys Arg Ala Cys Asn Lys Thr
 275 280 285
 Pro Ile Lys Arg Thr Gln Ala
 290 295

<210> 2714

<211> 288

<212> PRT

<213> Homo sapiens

<400> 2714

Met Ile Leu Arg Arg Ala Pro Ser Ser Leu Gln Thr Pro Ser Leu Leu
 1 5 10 15
 Leu Asp Glu Arg Leu Leu Val Lys Arg Cys Ala Leu Val Val Ile Trp
 20 25 30
 Ala Phe Gly Leu Arg Leu His Arg Val Gln Pro Gly Ala Arg Asn His
 35 40 45
 Leu Leu Glu Ala Ala Pro Ser Leu Ala Thr Glu Ala Leu Pro Ser Arg
 50 55 60
 Cys Gln Ser Pro Ala Trp Arg Ser Cys Gln Met Ala Lys Val Pro Phe
 65 70 75 80
 Ser Gln Val Lys Cys Ser Ala Tyr Thr Gly Ala Lys Thr Leu Ser Trp

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| His Leu Cys Trp Pro Ser Ala Gly Ala Lys Pro Arg Gly Ser Leu Pro | | | |
| 100 | 105 | 110 | |
| Trp Val Ser Arg Val Leu Pro Ala Ser Ala Trp Cys Pro Val Gly Ala | | | |
| 115 | 120 | 125 | |
| Ala Ala Ser Leu Leu Val Glu Gln Met Pro Gly Cys Gln Leu Gly Gly | | | |
| 130 | 135 | 140 | |
| Gly Ala Asn Arg Ala Leu Gln Ala Trp Ser Trp Gln Pro Ser Trp Trp | | | |
| 145 | 150 | 155 | 160 |
| Pro Leu Phe Arg Ala Pro Thr Leu Gly Ser Ile Arg Lys Gly Leu Lys | | | |
| 165 | 170 | 175 | |
| Met Ile Glu Glu Ala Pro Phe Arg Gly Gln Gly Gly Cys Cys Asp Arg | | | |
| 180 | 185 | 190 | |
| Val Ala Arg Gly Arg Ala Phe Pro Ala Ala Gly Gly Asp Ala Thr Trp | | | |
| 195 | 200 | 205 | |
| Thr Arg Arg Arg Thr Ala His Ser Ser Ser Thr Pro His Pro Gly Lys | | | |
| 210 | 215 | 220 | |
| Ala Ala Ala Ser Pro Arg Val Gly Trp Ser Gly Pro Leu Gln Asp Ser | | | |
| 225 | 230 | 235 | 240 |
| Cys Gly Val Pro Ser Pro Ala His Thr Arg Asp Ala Ile Cys Gly Phe | | | |
| 245 | 250 | 255 | |
| Gly Glu Cys Phe Ala Asp Asp Pro Ser Lys Gln Ser His Pro Arg Met | | | |
| 260 | 265 | 270 | |
| Gly Phe Ser Glu Ser Gln Thr Leu Asp Leu Ser Ser Gln Arg Glu Gly | | | |
| 275 | 280 | 285 | |

<210> 2715

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2715

| |
|---|
| Met Gln Leu Leu Lys Ala Leu Trp Ala Leu Ala Gly Ala Ala Leu Cys |
| 1 5 10 15 |
| Cys Phe Leu Val Leu Val Ile His Ala Gln Phe Leu Lys Glu Gly Gln |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Leu | Ala | Ala | Gly | Thr | Cys | Glu | Ile | Val | Thr | Leu | Asp | Arg | Asp | Ser | Ser |
| | 35 | | | | | | 40 | | | | 45 | | | | |
| Gln | Pro | Arg | Arg | Thr | Ile | Ala | Arg | Gln | Thr | Ala | Arg | Cys | Ala | Cys | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Gly | Gln | Ile | Ala | Gly | Thr | Thr | Arg | Ala | Arg | Pro | Ala | Cys | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Arg | Ile | Ile | Lys | Thr | Lys | Gln | Trp | Cys | Asp | Met | Leu | Pro | Cys | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Glu | Gly | Glu | Gly | Cys | Asp | Leu | Leu | Ile | Asn | Arg | Ser | Gly | Trp | Thr | Cys |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Thr | Gln | Pro | Gly | Gly | Arg | Ile | Lys | Thr | Thr | Thr | Val | Ser | | | |
| | | 115 | | | | | 120 | | | | 125 | | | | |

<210> 2716

<211> 170

<212> PRT

<213> Homo sapiens

<400> 2716

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Arg | His | Ser | Leu | Glu | Glu | Gly | Leu | Asp | Met | Val | Asn | Arg | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ala | His | Glu | Arg | Glu | Met | Gln | Thr | Ala | Met | Gln | Ile | Ser | Gln | Ser |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Trp | Asp | Glu | Ser | Leu | Ser | Leu | Ser | Asp | Ser | Asp | Phe | Asp | Lys | Pro | Glu |
| | 35 | | | | | | 40 | | | | 45 | | | | |
| Lys | Leu | Tyr | Ser | Pro | Lys | Arg | Ile | Asp | Phe | Thr | Pro | Val | Ser | Pro | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ser | Pro | Thr | Arg | Gly | Phe | Gly | Lys | Met | Phe | Val | Ser | Ser | Ser | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Leu | Pro | Pro | Ser | Pro | Val | Pro | Ser | Pro | Arg | Arg | Phe | Ser | Ser | Arg | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Gln | Ser | Pro | Val | Lys | Cys | Ile | Arg | Pro | Ser | Val | Leu | Gly | Pro | Leu |
| | | 100 | | | | | | 105 | | | | 110 | | | |
| Lys | Arg | Lys | Gly | Glu | Met | Glu | Thr | Glu | Ser | Gln | Pro | Lys | Arg | Leu | Phe |

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Gln Gly Thr Thr Asn Met Leu Ser Pro Asp Ala Ala Gln Leu Ser Asp | | |
| 130 | 135 | 140 |
| Leu Ser Ser Trp Trp Cys Tyr Gln Gly Glu Glu Ile Pro Ala Leu Thr | | |
| 145 | 150 | 155 |
| Arg Cys Val Glu His Leu Gln Met Asn Glu | | 160 |
| 165 | 170 | |

<210> 2717

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2717

| |
|---|
| Met Leu Val Arg Phe Ala Leu Ser Leu Leu Pro Asn Leu Gln Pro Gly |
| 1 5 10 15 |
| Gln Gln Ser Glu Val Pro Leu Trp Pro Glu Ala Ser Pro Pro Cys Leu |
| 20 25 30 |
| Pro Ser Phe Asp Leu Ser Phe Pro Ser Met Lys Pro Ser Gly Pro Cys |
| 35 40 45 |
| His Phe Phe Thr Thr Glu Asn Ser Trp Leu Leu Gln Lys Pro Glu Tyr |
| 50 55 60 |
| Leu Ser Phe Pro Ala Gln Met Ala Ala Ser Leu Ser Cys Pro Ile Trp |
| 65 70 75 80 |
| Ala Thr Ser Ala Ser Cys Arg His Pro Arg Gln Met Asp Ser Val Gly |
| 85 90 95 |
| Gly Asn Gln Ala Leu Arg Ile Gln Cys Glu Glu Val Ala Glu Cys Leu |
| 100 105 110 |
| Phe Ile Leu Phe |
| 115 |

<210> 2718

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2718

```

Met Ser Ala Ala Gly Lys Ala Gly Arg Ala Asp Thr Arg Gln Leu Phe
 1             5             10             15
Pro Ser Leu Gly Lys Gln His Gly His Gly Cys His Arg Val Pro Arg
          20             25             30
Arg Cys Ser His Gly Arg Arg Asn Ala Phe Leu Gln Gly Ala Ser Trp
          35             40             45
Leu Ser Ser Pro Arg Ser Ser Gly Arg Val Arg Ser Val Ala Leu Val
          50             55             60
His Arg Arg Arg Leu Pro Arg Leu Lys Leu Val Met Arg Ser Trp Ala
 65             70             75             80
Pro Gly Gly Ser Ser Leu Arg Asn Thr Leu Glu Thr Cys Asp Ile Ser
          85             90             95
Ala His Thr Pro His
          100

```

<210> 2719

<211> 181

<212> PRT

<213> Homo sapiens

<400> 2719

```

Met Met Thr Ser Leu Asn Cys Ala Arg Thr Arg Val Pro Gly Ala Pro
 1             5             10             15
Cys Asp His Leu Gly Arg Gly Leu Arg Leu Val Val Thr Gln Arg Ser
          20             25             30
Asp Pro Leu Pro Pro Ala Ala Leu Ser Asp Pro Val Ala Lys Lys Ser
          35             40             45
Cys Met Leu Asn Leu Leu Ser Ser Leu Pro Glu Ala Asn Leu Leu Thr
          50             55             60
Phe Leu Phe Leu Leu Asp His Leu Glu Arg Met Ala Glu Lys Glu Ala
 65             70             75             80
Val Asn Lys Met Ser Leu His Asn Leu Gly Thr Val Phe Gly Pro Thr

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Leu | Leu | Arg | Pro | Ser | Glu | Lys | Glu | Ser | Lys | Leu | Pro | Ala | Asn | Pro | Ser |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Gln | Pro | Ile | Thr | Met | Thr | Asp | Ser | Trp | Ser | Leu | Glu | Val | Met | Ser | Gln |
| | 115 | | | | | | 120 | | | | | | 125 | | |
| Ile | Gln | Ile | Pro | Asn | Lys | Met | Leu | Glu | Cys | Asn | Pro | Trp | Thr | Ile | Arg |
| | 130 | | | | | | 135 | | | | | | 140 | | |
| Val | Leu | Ala | Ala | Phe | Gly | Leu | Pro | Leu | Ser | Ala | Trp | Leu | Arg | Cys | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gln | Glu | Trp | Val | Leu | Lys | Ser | Leu | Glu | Asn | Arg | Ile | Arg | Gly | Gly | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Arg | Gly | Gln | Ala | | | | | | | | | | | |
| | 180 | | | | | | | | | | | | | | |

<210> 2720

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2720

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ala | Gln | Pro | Phe | Leu | Lys | Leu | Cys | Glu | Asp | Glu | Arg | Val | Arg |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Gly | Gly | Glu | Trp | Ser | Ser | Ser | Gln | Gly | Pro | Val | Glu | Val | Thr | Ala | His |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Pro | Pro | Ala | Cys | Phe | Ser | Ser | Ala | Gly | Ala | Gly | Trp | Trp | Ser | Arg | Leu |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Gln | Gly | Trp | Ala | Leu | Ala | Pro | Leu | Glu | Gln | Ala | Arg | Ala | Pro | Glu | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Leu | Leu | Pro | Asp | Trp | Cys | Trp | Ser | Ala | Phe | Gly | Ser | Ala | Val | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Arg | Asn | Ile | Pro | Gly | Pro | Cys | Leu | Gly | Thr | Pro | Gly | Gly | Lys | Gln |
| | | 85 | | | | | | | 90 | | | | | 95 | |
| Asp | Gly | Arg | Trp | Pro | Val | His | Thr | Phe | Pro | Leu | Ile | Leu | Gly | Ala | Leu |
| | | 100 | | | | | | | 105 | | | | | 110 | |
| Ile | Pro | Thr | Ser | His | Pro | Leu | Gln | Trp | Gly | Pro | Trp | Pro | Thr | Ser | Gln |

115 120 125
Arg

<210> 2721

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2721

Met Gly Asp Gly Cys Thr Phe Cys Ala Pro Arg Ser Leu Trp Leu Pro
1 5 10 15
Ala Ala Asp Pro Ser Leu Ile Leu Leu Pro Asp Leu Ser Ile Phe Leu
20 25 30
Ser Ala Cys Glu Lys Met Ser Val Val Pro Glu Lys Ser Gly Cys Leu
35 40 45
Cys Leu Ala Ser Leu His Thr Trp Ala Leu Thr Ser Arg Leu Leu Gly
50 55 60
Ser Ser Ser Ser Val Ser Arg Ala Ala Val Leu Leu Leu Leu Val Phe
65 70 75 80
Ser His Phe Pro Pro Gly Lys Glu Arg Leu Pro Asn Ala Gly Met Glu
85 90 95
Tyr Lys Gln Asn Val Met Gly Ser Ala Val Thr Pro Pro Pro Glu Ala
100 105 110
Glu Ala Val Leu Leu Glu Asp Arg Arg Arg His His Arg Val Phe Pro
115 120 125
Leu Pro Leu Pro Leu Leu Arg Asn Val Ser Ile Pro Ile Gly
130 135 140

<210> 2722

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2722

Met Cys Leu Asn Leu Leu Ala Gln Leu Leu Pro Pro Gly Ser Leu Ser
 1 5 10 15
 Arg Pro Arg Thr Phe Ser Ser Gln Pro Leu Gln Thr Lys Leu Met Thr
 20 25 30
 His Asn Gly Leu Phe Arg Pro Ile Pro Tyr Leu Thr Ala Val Ser Ala
 35 40 45
 Asp Glu Pro Thr Ala Ser Gln Gln Pro Pro Gln Ala Gln Leu His Arg
 50 55 60
 Tyr Asn Gly Leu Phe Arg Pro Ser Ser Cys Leu Pro Ala Phe Ser Pro
 65 70 75 80
 Gly Pro Glu Leu Ser Gln Val Asp Leu Thr Arg Pro Ser Ser Cys Phe
 85 90 95
 Phe Ala Ala Ser Pro Gly Pro Ala Pro Ala Ser Trp Trp Pro Leu Gln
 100 105 110
 Ala Gln Pro Val Pro Pro Val Gly Leu Tyr Ser Pro Asn Ile Cys Leu
 115 120 125
 Thr Ala Asp Ser Ser Arg Pro Ala Ser Ala Ser Gln Trp Thr Leu Gln
 130 135 140
 Thr Gln Met Val Ser His Cys Gly Ile Leu Arg Arg Ser Ser Cys Leu
 145 150 155 160
 Ser Ala Ala Ser Pro Gly Pro Ala Pro Pro Ala Ser Gln Trp Pro Leu
 165 170 175
 Ser Ala Gln Pro Ser Ser Cys Leu Pro Ala Ala Phe Pro Ser Pro Ala
 180 185 190
 Phe Asp Phe Trp Trp Pro Leu Gln Ala Ser Thr Arg Pro Ser Leu Leu
 195 200 205
 Pro Pro Glu Gly Leu His Arg Pro Ser Leu Cys Leu Thr Ala Asp Ser
 210 215 220
 Pro Arg Pro Ala Ser Ser Arg Leu Thr Ala Ala Ser Pro Val Gln Ser
 225 230 235 240
 Ser Cys Leu Ser Ala Thr Ser Ala Gly Pro Ala Thr Ala Cys Gln Trp
 245 250 255
 Pro Leu

<210> 2723

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2723

```

Met Ser Phe Ser Pro Tyr Ser Thr Met Ile Thr Val Cys Val Cys Phe
  1             5             10             15
Asn Ser Arg Val Gln Leu Thr Val Pro Ser Phe Thr Ala Trp Leu Arg
      20             25             30
Ser Arg Tyr Ser Lys Ala Leu Phe Met Val Leu Arg Arg Ala Ala Gln
      35             40             45
Glu Lys Asp Lys Gly Val Cys Gln Gly Trp His Cys Val Lys Lys Trp
      50             55             60
Ala Cys Lys Gly Arg Ile Pro Gly Gln Pro Leu Gln Pro Gln Pro Leu
      65             70             75             80
Gly Pro Tyr Leu Arg Ser Leu Ser Gln His Pro Ala Thr Gln Thr Pro
      85             90             95
Arg Pro Gln Ala Arg Ala Ser Ser Arg Tyr Leu Glu Leu His Arg Ser
      100            105            110
Gln Asn Arg Gly Gly Ser Glu Phe Lys Phe Trp Phe Cys Tyr Cys Leu
      115            120            125
Ile Ala Cys Cys Arg Asp Ser Ile Ser Ser Ser Gly Lys Trp Glu
      130            135            140

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<210> 2724

<211> 347

<212> PRT

<213> Homo sapiens

<400> 2724

```

Met Pro Gln Ala Glu Leu Gly Ile Gln Val Cys Thr Cys Arg Leu Arg
  1             5             10             15

```

Gly Ser Val Ser Arg Cys Cys Ser His Arg Glu Phe Arg Arg Gln Pro
 20 25 30
 Ser Pro Cys Ala Ala Gly Ile Gly Leu Leu His Leu Gly Ser Thr Ala
 35 40 45
 Ser Arg Gln Val Lys Pro Pro Arg Leu Pro Pro Pro Pro Trp Gly Arg
 50 55 60
 Ser Gly Glu Lys Leu Pro Phe Thr Pro Phe Pro Gly Cys Ser Leu Ser
 65 70 75 80
 Arg Trp His Ala Ser Pro Gln Thr Gln Val Ala Phe Gly Pro Arg Trp
 85 90 95
 Val Ser Leu Leu Pro Leu Pro His Thr Pro Ser Gly His Trp Asp Pro
 100 105 110
 Cys Pro Ser Asp Val Leu Gly Ser Arg Ser Gly Ala Ser His Cys Gly
 115 120 125
 Lys Arg Pro Gly Ala Trp Pro Glu Arg Gln Pro Arg Ala Gly Leu Ser
 130 135 140
 Pro Glu Ser Trp Ser Arg Ala Arg Glu Ala Pro Ile Pro Pro Arg Pro
 145 150 155 160
 Ala Ala Leu Ser Ala Val Ser Ser Ile Cys Ser Ser Phe His Pro Gln
 165 170 175
 Leu Cys Val Pro Val Ile Pro Pro Phe Ser Lys Ser Pro Val Pro Ile
 180 185 190
 Pro Ser Val Pro Thr His Ser Cys Ser Pro Lys Lys Ile Ser Tyr Arg
 195 200 205
 Cys Ile Tyr Asn Leu Trp Ile Arg Gly Leu Ser Ile Tyr Tyr Tyr Trp
 210 215 220
 Leu Ile Ile Ile Asn Tyr Val Asn Leu Pro Pro Val Cys Leu Leu Arg
 225 230 235 240
 Trp Val Ser Glu Glu Thr Leu Gly Glu Glu Asp Ala Leu Ala Ser Arg
 245 250 255
 Phe Ser Pro Pro Thr Pro Val Leu Ser Gly Arg Gln Trp Ser Gly Ala
 260 265 270
 Thr Gly Trp Ala Pro Phe Ser Leu Pro Pro Ser Pro Cys Pro Phe Cys
 275 280 285
 Arg Pro Leu Arg Gly Ala Val Cys Leu Ser Leu Ser Leu Leu Pro Leu
 290 295 300

Leu Arg His Trp Leu Pro Gln Ser Glu Gln Pro Ala Gly Gly Arg Arg
 305 310 315 320
 Ser Cys Val Gly His Cys Leu Leu Gln Cys Cys Arg Arg Arg Ala Glu
 325 330 335
 Ala Pro Pro Gly Gly Phe His Leu Thr Gln Pro
 340 345

<210> 2725

<211> 128

<212> PRT

<213> Homo sapiens

<400> 2725

Met Pro Arg Arg Arg Pro Asn Pro Thr Leu Gly Arg Gly Tyr Arg Asp
 1 5 10 15
 Arg Trp Gly Ser Ala Gly Ala Asp Val Gly Thr Val Ser Phe Pro Leu
 20 25 30
 Ala Pro Ala Arg Cys Phe Gly Ser Gly His Arg Glu Ala Thr Val Ala
 35 40 45
 Arg Arg His Ser Leu Thr Glu Val Ser Leu Ser Pro Ala Pro Ser Thr
 50 55 60
 Trp Pro Gly Ala Cys Asn Ala Val Pro Thr Gly Gly Met Asn Gln Asn
 65 70 75 80
 Pro Arg Leu Pro Ser Arg Ser Ser Arg Pro Val Pro Thr Ser Ser Leu
 85 90 95
 Pro Ala Cys Gly Asp Phe Glu Ala Leu Ala Thr Ile Asn Tyr Phe Gln
 100 105 110
 Ala His Ser Val Leu Ser Ser Pro Gly Pro Gln Leu Thr Ala Asn His
 115 120 125

<210> 2726

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2726

Met Leu Val Arg Pro Val Leu Asn Ser Arg Pro Gln Val Val His Pro
 1 5 10 15
 Leu Trp Pro Pro Lys Met Leu Gly Leu Gln Ala Leu Ala Thr Thr Pro
 20 25 30
 Gly Leu Phe Ile Tyr Leu Leu Met Val Phe Phe Phe Phe Phe Phe Phe
 35 40 45
 Phe Phe Glu Met Glu Ser Cys Ser Ile Val Gln Ala Gly Val Gln Cys
 50 55 60
 His Asp Leu Gly Ser Leu Gln Pro Pro Pro Gly Phe Lys Leu Phe
 65 70 75 80
 Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Leu Gln Pro
 85 90 95
 His Leu Ala Asp Phe Cys Ile Phe Ser Arg Asp Gly Val Leu Pro Tyr
 100 105 110
 Trp Ser Gly Trp Ser Gln Ile Pro Asp Val Arg
 115 120

<210> 2727

<211> 208

<212> PRT

<213> Homo sapiens

<400> 2727

Met Ala Thr Ser Ala Val Pro Ser Asp Asn Leu Pro Thr Tyr Lys Leu
 1 5 10 15
 Val Val Val Gly Asp Gly Gly Val Gly Lys Ser Ala Leu Thr Ile Gln
 20 25 30
 Phe Phe Gln Lys Ile Phe Val Pro Asp Tyr Asp Pro Thr Ile Glu Asp
 35 40 45
 Ser Tyr Leu Lys His Thr Glu Ile Asp Asn Gln Trp Ala Ile Leu Asp
 50 55 60
 Val Leu Asp Thr Ala Gly Gln Glu Glu Phe Ser Ala Met Arg Glu Gln
 65 70 75 80

Tyr Met Arg Thr Gly Asp Gly Phe Leu Ile Val Tyr Ser Val Thr Asp
 85 90 95
 Lys Ala Ser Phe Glu His Val Asp Arg Phe His Gln Leu Ile Leu Arg
 100 105 110
 Val Lys Asp Arg Glu Ser Phe Pro Met Ile Leu Val Ala Asn Lys Val
 115 120 125
 Asp Leu Met His Leu Arg Lys Ile Thr Arg Glu Gln Gly Lys Glu Met
 130 135 140
 Ala Thr Lys His Asn Ile Pro Tyr Ile Glu Thr Ser Ala Lys Asp Pro
 145 150 155 160
 Pro Leu Asn Val Asp Lys Ala Phe His Asp Leu Val Arg Val Ile Arg
 165 170 175
 Gln Gln Ile Pro Glu Lys Ser Gln Lys Lys Lys Lys Lys Thr Lys Trp
 180 185 190
 Arg Gly Asp Arg Ala Thr Gly Thr His Lys Leu Gln Cys Val Ile Leu
 195 200 205

<210> 2728

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2728

Met Thr Cys Asn Val Glu His Leu Phe Ile Cys Leu Phe Ser Ile Cys
 1 5 10 15
 Ile Tyr Ser Leu Met Arg Cys Leu Phe Arg Ser Phe Val His Phe Lys
 20 25 30
 Ile Arg Leu Phe Ile Phe Leu Leu Gly Phe Gln Leu Phe Cys Ile Leu
 35 40 45
 Asp Asn Ser Ser Leu Ser Asp Met Ser Phe Ala Lys Phe Phe Phe Pro
 50 55 60
 Val Trp Gly Trp Phe Ser His Leu Phe Ser Thr Phe Ser Lys Arg Lys
 65 70 75 80
 Tyr Ile Asn Met Thr Val Gly Lys Ile Ala Met Arg Arg His Arg Val

| | | | |
|-----|-----|-----|-----|
| | 85 | 90 | 95 |
| Ala | Leu | Ile | Ser |
| Arg | Asn | Ile | Thr |
| Pro | Pro | | |
| 100 | 105 | | |

<210> 2729

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2729

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Ser | Arg | Pro | Trp | Leu | Leu | Ser | Pro | Val | Ser | His | Gly | Thr | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Glu | Trp | Pro | Phe | Pro | Tyr | Leu | Gln | Ala | Ser | Val | Ser | His | Pro | Phe | Ser |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Glu | Asp | Ala | Gly | Leu | Phe | Phe | Phe | Phe | Leu | Arg | Arg | Ser | Leu | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Pro | Arg | Leu | Glu | Cys | Ser | Gly | Val | Ile | Ser | Ala | His | Cys | Lys | Pro |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Arg | Leu | Pro | Gly | Ser | Arg | His | Ser | Pro | Ala | Ser | Ala | Ser | Arg | Val | Ala |
| | 65 | | | | 70 | | | | 75 | | | | 80 | | |
| Gly | Thr | Thr | Gly | Ala | Arg | His | His | Ala | Trp | Leu | Ile | Phe | Cys | Ile | Phe |
| | | | 85 | | | | | 90 | | | | 95 | | | |
| Ser | Arg | Asp | Gly | Val | Ser | Leu | Leu | Ala | Arg | Met | Val | Ser | Ile | Ser | |
| | | 100 | | | | | 105 | | | | | 110 | | | |

<210> 2730

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2730

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | His | Glu | Tyr | His | Val | Pro | Ile | Arg | Leu | Ile | Ile | Gly | Leu | Tyr |
| 1 | | | | | 5 | | | | 10 | | | | 15 | | |
| Val | Leu | Met | Ile | His | Glu | Tyr | His | Val | Pro | Ile | Arg | Leu | Ile | Ile | Gly |

<211> 114

<212> PRT

<213> Homo sapiens

<400> 2731

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Leu | Phe | Glu | Gly | Arg | Gly | Ile | Ser | Glu | Glu | Gly | Leu | Arg | Asp |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Ser | Pro | Phe | Val | Gly | Leu | Gly | His | Gln | Val | Gly | Glu | Ser | Gly | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Thr | Leu | Glu | Gly | Leu | Ala | Glu | Pro | Ala | Phe | Pro | Val | His | Pro | Ser |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Gly | Arg | Ala | Gly | Ser | Arg | Cys | Arg | Leu | Pro | Ile | Ser | Ser | Leu | Ser | Ser |
| | | | 50 | | | | | 55 | | | | | 60 | | |
| Gly | Thr | Ala | Pro | Met | Pro | Pro | Trp | Leu | Ala | Trp | Glu | Pro | Ile | Leu | Pro |
| | | | 65 | | | | | 70 | | | | | 75 | | |
| Arg | Leu | Gly | Val | Asn | Lys | Gln | Arg | Thr | Cys | Lys | Glu | Ser | Leu | Met | Gly |
| | | | | 85 | | | | | | | | | 90 | | |
| Cys | Thr | Ala | Leu | Pro | Asn | Pro | Ala | Gln | Gly | Arg | Val | Leu | Leu | Phe | Val |

100 105 110
Val Trp

<210> 2732

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2732

Met Phe Val Asp Pro Gln Val Phe Pro Gly Lys Thr Thr Arg Lys Gly
1 5 10 15
Gln Ala Asp Ala Arg Asp Gly Phe Pro Trp Ser Trp Ala Ala Pro Pro
20 25 30
Leu Trp Leu Cys Arg Val Gln Ser Pro Ser Trp Leu Leu Ser Trp Ala
35 40 45
Gly Ile Glu Cys Leu Gln Leu Phe Gln Val His Ser Ala Ser Tyr Arg
50 55 60
Trp Ile Tyr Leu Ser Gly Ala Cys Asp Glu Lys Gly Cys Arg Glu Asp
65 70 75 80
Leu Ser His Ala Leu Glu Ala Phe Phe Leu Leu Ser Trp Gly Leu Thr
85 90 95
Phe Gly Tyr Leu Leu Leu Thr Gln Ile Ser Ala Thr Gly Leu Asn Phe
100 105 110
Ser Ser Glu Asn Gly Ile Phe Leu Phe Tyr His Ile Val Arg Leu Gln
115 120 125
Ile Phe Arg Thr Phe Met Leu Cys Phe Pro Tyr Lys Thr Glu Cys Leu
130 135 140

<210> 2733

<211> 474

<212> PRT

<213> Homo sapiens

<400> 2733

Met Asp Arg Asn Pro Ser Pro Pro Pro Pro Gly Arg Asp Lys Glu
 1 5 10 15
 Glu Glu Glu Glu Val Ala Gly Gly Asp Cys Ile Gly Ser Thr Val Tyr
 20 25 30
 Ser Lys His Trp Leu Phe Gly Val Leu Ser Gly Leu Ile Gln Ile Val
 35 40 45
 Ser Pro Glu Asn Thr Lys Ser Ser Ser Asp Asp Glu Glu Gln Leu Thr
 50 55 60
 Glu Leu Asp Glu Glu Met Glu Asn Glu Ile Cys Arg Val Trp Asp Met
 65 70 75 80
 Ser Met Asp Glu Asp Val Ala Leu Phe Leu Gln Glu Phe Asn Ala Pro
 85 90 95
 Asp Ile Phe Met Gly Val Leu Ala Lys Ser Lys Cys Pro Arg Leu Arg
 100 105 110
 Glu Ile Cys Val Gly Ile Leu Gly Asn Met Ala Cys Phe Gln Glu Ile
 115 120 125
 Cys Val Ser Ile Ser Ser Asp Lys Asn Leu Gly Gln Val Leu Leu His
 130 135 140
 Cys Leu Tyr Asp Ser Asp Pro Pro Thr Leu Leu Glu Thr Ser Arg Leu
 145 150 155 160
 Leu Leu Thr Cys Leu Ser Gln Ala Glu Val Ala Ser Val Trp Val Glu
 165 170 175
 Arg Ile Gln Glu His Pro Ala Ile Tyr Asp Ser Ile Cys Phe Ile Met
 180 185 190
 Ser Ser Ser Thr Asn Val Asp Leu Leu Val Lys Val Gly Glu Val Val
 195 200 205
 Asp Lys Leu Phe Asp Leu Asp Glu Lys Leu Met Leu Glu Trp Val Arg
 210 215 220
 Asn Gly Ala Ala Gln Pro Leu Asp Gln Pro Gln Glu Glu Ser Glu Glu
 225 230 235 240
 Gln Pro Val Phe Arg Leu Val Pro Cys Ile Leu Glu Ala Ala Lys Gln
 245 250 255
 Val Arg Ser Glu Asn Pro Glu Trp Leu Asp Val Tyr Met His Ile Leu
 260 265 270

Gln Leu Leu Thr Thr Val Asp Asp Gly Ile Gln Ala Ile Val His Cys
 275 280 285
 Pro Asp Thr Gly Lys Asp Ile Trp Asn Leu Leu Phe Asp Leu Val Cys
 290 295 300
 His Glu Phe Cys Gln Ser Asp Asp Pro Pro Ile Ile Leu Gln Glu Gln
 305 310 315 320
 Lys Thr Val Leu Ala Ser Val Phe Ser Val Leu Ser Ala Ile Tyr Ala
 325 330 335
 Ser Gln Thr Glu Gln Glu Tyr Leu Lys Ile Glu Lys Asp Leu Pro Leu
 340 345 350
 Ile Asp Ser Leu Ile Arg Val Leu Gln Asn Met Glu Gln Cys Gln Lys
 355 360 365
 Lys Pro Glu Asn Ser Ala Glu Ser Asn Thr Glu Glu Thr Lys Arg Thr
 370 375 380
 Asp Leu Thr Gln Asp Asp Phe His Leu Lys Ile Leu Lys Asp Ile Leu
 385 390 395 400
 Cys Glu Phe Leu Ser Asn Ile Phe Gln Ala Leu Thr Lys Glu Thr Val
 405 410 415
 Ala Gln Gly Val Lys Glu Gly Gln Leu Ser Lys Gln Lys Cys Ser Ser
 420 425 430
 Ala Phe Gln Asn Leu Leu Pro Phe Tyr Ser Pro Val Val Glu Asp Phe
 435 440 445
 Ile Lys Ile Leu Arg Glu Val Asp Lys Ala Leu Ala Asp Asp Leu Glu
 450 455 460
 Lys Asn Phe Pro Ser Leu Lys Val Gln Thr
 465 470

<210> 2734

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2734

Met Gln Lys Phe Arg Lys Met Asn Glu Thr His Tyr Tyr Tyr Ser Phe
 1 5 10 15

Ser Pro Trp Leu Ser Ser Ser Val Thr Ala Pro Ser Met Val Ala Pro
 20 25 30
 Val Thr Phe Ala Ser Ile Val Glu Glu Glu Leu Gln Gln Glu Ala Ala
 35 40 45
 Leu Ile Arg Ser Arg Glu Lys Pro Leu Ala Leu Ile Gln Ile Glu Glu
 50 55 60
 His Ala Ile Gln Asp Leu Leu Val Phe Tyr Glu Ala Phe Gly Asn Pro
 65 70 75 80
 Glu Glu Phe Val Ile Val Glu Arg Thr Pro Gln Gly Pro Leu Ala Val
 85 90 95
 Pro Met Trp Asn Lys His Gly Cys
 100

<210> 2735

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2735

Met Asn Gly Ala Gly Phe Leu Lys His Cys Leu Glu Glu Arg Gln Gln
 1 5 10 15
 Lys Cys Leu Met Asn Pro Thr Gly Leu Leu Gly Cys Ser Pro Leu Glu
 20 25 30
 Thr Ser Asn Asn Val Cys Arg Asn Pro Gly His Val Glu Arg Pro His
 35 40 45
 Ile Arg Val Gln Leu Arg Ser Gln Leu Thr Ala Gly Ile Asp Ile Met
 50 55 60
 Phe Thr Leu Gly Glu Ala Ser Cys His Ala Val Arg Thr Leu Gly Gln
 65 70 75 80
 Ser Tyr Glu Glu Ala Arg Val Val Arg Lys Arg Gly Leu Gln Pro Thr
 85 90 95
 Ala Ile Asp Gly Val Leu Leu Cys Phe Pro Val Gly Val Gln
 100 105 110

<210> 2736

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2736

```

Met Cys Thr Val Asp Val Glu Gly Phe Asp Asp Val Gly Glu Thr Leu
  1             5             10             15
Ser Asp Ala Val Arg Asp Gly Leu Gly Thr Ile Leu Arg Gly Gly Ala
          20             25             30
Glu Glu Gly Ser Tyr Asp Asn Trp Pro His Thr Arg Lys Ser Trp Gly
          35             40             45
Pro Leu Ser Pro Gly His Gln Arg Glu Leu Trp Thr Gln Pro Asp Pro
          50             55             60
Trp Thr Glu Val Leu Ser Gly His Lys Gly Asp Ala Gly Ala Cys Gly
          65             70             75             80
Cys Cys Cys Phe Cys Ser Gln Phe Ile Asn Ala Arg Cys Ala His Pro
          85             90             95
Leu Cys Leu Ala Arg Gly Leu Asp Arg Arg Ala Ser Glu Glu Met Pro
          100            105            110
Ile Leu Gln Ala Leu Cys Leu Leu Pro Lys Val Ser Thr Arg Ser Ile
          115            120            125
Thr Val Pro Ser Pro Gln Arg Ser Ala Pro Arg Ala Ser Leu Cys Pro
          130            135            140
Pro His Lys Gly Lys Ser Pro
145             150

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<210> 2737

<211> 156

<212> PRT

<213> Homo sapiens

<400> 2737

```

Met Val Pro Val Phe Thr Ser Ser Ala Leu Pro Val Lys Asp Val Glu
  1             5             10             15

```

Asp Lys Pro Glu Gln Gln Thr Arg Thr Arg Glu Thr Asp Lys Ser Pro
 20 25 30
 Thr Ser Thr Glu Pro Arg Gln Gln Pro Ser Ala Leu Phe Ala Arg Gly
 35 40 45
 Asn Arg Lys Ala Val Lys Ser Pro Gln Arg Ser Ser Ser Lys Ile Lys
 50 55 60
 Glu Asn Lys His Pro Phe Ala Leu Tyr Gly Trp Gly Glu Lys Gln Thr
 65 70 75 80
 Asp Thr Gly Ser Gln Lys Thr His Asn Val Cys Ala Ser Ala Pro Val
 85 90 95
 His Glu Ile His Glu Ser Ala Leu Arg Ala Lys Asn Arg Arg Gln Val
 100 105 110
 Glu Lys Arg Lys Leu Val Ala Gln Arg Gln Arg Ala His Ser Val Asp
 115 120 125
 Val Glu Lys Asn Arg Lys Met Lys Ala Ser Ser Ser Glu Asn Pro Trp
 130 135 140
 Met Thr Glu Tyr Met Arg Cys Tyr Ser Ala Arg Ala
 145 150 155

<210> 2738

<211> 676

<212> PRT

<213> Homo sapiens

<400> 2738

Met Val Ser Asn Lys Glu Met Pro Lys Glu Pro Glu Asp Thr Tyr Ala
 1 5 10 15
 Lys Gly Glu Asp Phe Thr Val Thr Ser Lys Pro Ala Gly Leu Ser Glu
 20 25 30
 Asp Gln Lys Thr Ala Phe Ser Ile Ile Ser Glu Gly Cys Glu Ile Leu
 35 40 45
 Asn Ile His Ala Pro Ala Phe Ile Ser Ser Ile Asp Gln Glu Glu Ser
 50 55 60
 Glu Gln Met Gln Asp Lys Leu Glu Tyr Leu Glu Glu Lys Ala Ser Phe
 65 70 75 80

Lys Thr Ile Pro Leu Pro Asp Asp Ser Glu Thr Val Ala Cys His Lys
 85 90 95
 Thr Leu Lys Ser Arg Leu Glu Asp Glu Lys Val Thr Pro Leu Lys Glu
 100 105 110
 Asn Lys Gln Lys Glu Thr His Lys Thr Lys Glu Glu Ile Ser Thr Asp
 115 120 125
 Ser Glu Thr Asp Leu Ser Phe Ile Gln Pro Thr Ile Pro Ser Glu Glu
 130 135 140
 Asp Tyr Phe Glu Lys Tyr Thr Leu Ile Asp Tyr Asn Ile Ser Pro Asp
 145 150 155 160
 Pro Glu Lys Gln Lys Ala Pro Gln Lys Leu Asn Val Glu Glu Lys Leu
 165 170 175
 Ser Lys Glu Val Thr Glu Glu Thr Ile Ser Phe Pro Val Ser Ser Val
 180 185 190
 Glu Ser Ala Leu Glu His Glu Tyr Asp Leu Val Lys Leu Asp Glu Ser
 195 200 205
 Phe Tyr Gly Pro Glu Lys Gly His Asn Ile Leu Ser His Pro Glu Thr
 210 215 220
 Gln Ser Gln Asn Ser Ala Asp Arg Asn Val Ser Lys Asp Thr Lys Arg
 225 230 235 240
 Asp Val Asp Ser Lys Ser Pro Gly Met Pro Leu Phe Glu Ala Glu Glu
 245 250 255

 Gly Val Leu Ser Arg Thr Gln Ile Phe Pro Thr Thr Ile Lys Val Ile
 260 265 270
 Asp Pro Glu Phe Leu Glu Glu Pro Pro Ala Leu Ala Phe Leu Tyr Lys
 275 280 285
 Asp Leu Tyr Glu Glu Ala Val Gly Glu Lys Lys Lys Glu Glu Glu Thr
 290 295 300
 Ala Ser Glu Gly Asp Ser Val Asn Ser Glu Ala Ser Phe Pro Ser Arg
 305 310 315 320
 Asn Ser Asp Thr Asp Asp Gly Thr Gly Ile Tyr Phe Glu Lys Tyr Ile
 325 330 335
 Leu Lys Asp Asp Ile Leu His Asp Thr Ser Leu Thr Gln Lys Asp Gln
 340 345 350
 Gly Gln Gly Leu Glu Glu Lys Arg Val Gly Lys Asp Asp Ser Tyr Gln

| | | |
|---|-----|-----|
| 355 | 360 | 365 |
| Pro Ile Ala Ala Glu Gly Glu Ile Trp Gly Lys Phe Gly Thr Ile Cys | | |
| 370 | 375 | 380 |
| Arg Glu Lys Ser Leu Glu Glu Gln Lys Gly Val Tyr Gly Glu Gly Glu | | |
| 385 | 390 | 395 |
| Ser Val Asp His Val Glu Thr Val Gly Asn Val Ala Met Gln Lys Lys | | |
| 405 | 410 | 415 |
| Ala Pro Ile Thr Glu Asp Val Arg Val Ala Thr Gln Lys Ile Ser Tyr | | |
| 420 | 425 | 430 |
| Ala Val Pro Phe Glu Asp Thr His His Val Leu Glu Arg Ala Asp Glu | | |
| 435 | 440 | 445 |
| Ala Gly Ser Gln Gly Asn Glu Val Gly Asn Ala Ser Pro Glu Val Asn | | |
| 450 | 455 | 460 |
| Leu Asn Val Pro Val Gln Val Ser Phe Pro Glu Glu Glu Phe Ala Ser | | |
| 465 | 470 | 475 |
| Gly Ala Thr His Val Gln Glu Thr Ser Leu Glu Glu Pro Lys Ile Leu | | |
| 485 | 490 | 495 |
| Val Pro Pro Glu Pro Ser Glu Glu Arg Leu Arg Asn Ser Pro Val Gln | | |
| 500 | 505 | 510 |
| Asp Glu Tyr Glu Phe Thr Glu Ser Leu His Asn Glu Val Val Pro Gln | | |
| 515 | 520 | 525 |
| Asp Ile Leu Ser Glu Glu Leu Ser Ser Glu Ser Thr Pro Glu Asp Val | | |
| 530 | 535 | 540 |
| Leu Ser Gln Gly Lys Glu Ser Phe Glu His Ile Ser Glu Asn Glu Phe | | |
| 545 | 550 | 555 |
| Ala Ser Glu Ala Glu Gln Ser Thr Pro Ala Glu Gln Lys Glu Leu Gly | | |
| 565 | 570 | 575 |
| Ser Glu Arg Lys Glu Glu Asp Gln Leu Ser Ser Glu Val Val Thr Glu | | |
| 580 | 585 | 590 |
| Lys Ala Gln Lys Glu Leu Lys Lys Ser Gln Ile Asp Thr Tyr Cys Tyr | | |
| 595 | 600 | 605 |
| Thr Cys Lys Cys Pro Ile Ser Ala Thr Asp Lys Val Phe Gly Thr His | | |
| 610 | 615 | 620 |
| Lys Asp His Glu Val Ser Thr Leu Asp Thr Ala Ile Ser Ala Val Lys | | |
| 625 | 630 | 635 |
| Val Gln Leu Ala Glu Phe Leu Glu Asn Leu Gln Glu Lys Ser Leu Arg | | |

645 650 655
 Ile Glu Ala Phe Val Ser Glu Ile Glu Ser Phe Phe Asn Thr Ile Glu
 660 665 670
 Glu Asn Cys Ser
 675

<210> 2739

<211> 281

<212> PRT

<213> Homo sapiens

<400> 2739

Met Arg Ser Asn Ser Thr Leu Asn Lys His Asn Glu Asn Tyr Lys Gln
 1 5 10 15
 Lys Lys Leu Gly Glu Pro Ser Cys Asn Lys Leu Lys Asn Ile Leu Tyr
 20 25 30
 Asn Gly Ser Asn Ile Gln Leu Ser Lys Ile Cys Leu Ser His Ser Glu
 35 40 45
 Glu Phe Ile Lys Lys Glu Pro Leu Ser Asp Thr Thr Ser Gln Cys Met
 50 55 60
 Lys Asp Val Gln Ile Ile Leu Asp Ser Asn Ile Thr Lys Asp Thr Asn
 65 70 75 80
 Val Asp Lys Val Gln Leu Gln Asn Cys Lys Trp Tyr Gln Glu Asn Ala
 85 90 95
 Leu Leu Asp Lys Val Thr Asp Ala Glu Ile Lys Lys Gly Leu Leu His
 100 105 110
 Cys Thr Gln Lys Lys Ile Val Pro Gly His Ser Asn Val Pro Val Ser
 115 120 125
 Ser Ser Ala Ala Glu Lys Glu Glu Glu Val His Ala Arg Leu Leu His
 130 135 140
 Cys Val Ser Lys Gln Lys Ile Leu Leu Ser Gln Ala Arg Arg Thr Gln
 145 150 155 160
 Lys His Leu Gln Met Leu Leu Ala Lys His Val Val Lys His Tyr Gly
 165 170 175
 Gln Gln Met Lys Leu Ser Met Lys His Gln Leu Pro Lys Met Lys Thr

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 180 | | 185 | | 190 | | | | | | | | | | |
| Phe | His | Glu | Pro | Thr | Thr | Ile | Leu | Gly | Asn | Ser | Leu | Pro | Lys | Cys | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Glu | Ile | Lys | Pro | Glu | Val | Asn | Thr | Leu | Thr | Ala | Glu | Asn | Lys | Leu | Trp |
| | 210 | | | | | | 215 | | | | | 220 | | | |
| Asp | Asp | Ala | Lys | Asn | Gly | Phe | Ala | Arg | Cys | Thr | Ala | Ala | Glu | Ile | Gln |
| 225 | | | | | | | 230 | | | | 235 | | | | 240 |
| Arg | Phe | Ala | Phe | Ser | Ala | Thr | Gly | Leu | Leu | Ser | His | Val | Glu | Glu | Gly |
| | | | | | | | 245 | | | | 250 | | | | 255 |
| Leu | Asp | Ser | Asp | Ala | Thr | Asp | Ser | Ser | Ser | Asp | Asp | Asp | Leu | Asp | Glu |
| | | | | | | | 260 | | | | | | 265 | | 270 |
| Tyr | Thr | Leu | Arg | Lys | Asn | Val | Ala | Val | | | | | | | |
| | | | | | | | 275 | | | | | | | | 280 |

<210> 2740

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2740

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Gly | Ile | Lys | Val | Gly | Arg | Ser | Arg | Ala | Gln | Leu | Pro | Leu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Glu | Val | Glu | Glu | Val | Thr | Val | Pro | Glu | Gly | Phe | Val | Gln | Lys | Leu |
| | | | | 20 | | | | | 25 | | | | 30 | | |
| Asn | Asp | His | Leu | Leu | Leu | Val | Tyr | Thr | Gly | Lys | Thr | Arg | Leu | Ala | Arg |
| | | | | 35 | | | | | 40 | | | | 45 | | |
| Asn | Leu | Leu | Gln | Asp | Val | Leu | Arg | Ser | Trp | Tyr | Ala | Arg | Leu | Pro | Ala |
| | | | | 50 | | | | | 55 | | | | 60 | | |
| Val | Val | Gln | Asn | Ala | His | Ser | Leu | Val | Arg | Gln | Thr | Glu | Glu | Cys | Ala |
| 65 | | | | | | | 70 | | | | 75 | | | | 80 |
| Glu | Gly | Phe | Arg | Gln | Gly | Glu | Gly | Leu | Pro | Leu | Gly | Gly | Ser | Gly | His |
| | | | | | | | 85 | | | | 90 | | | | 95 |
| Trp | Glu | Arg | Val | Phe | Cys | His | Leu | Trp | Val | | | | | | |
| | | | | | | | 100 | | | | | | | | 105 |

<210> 2741

<211> 303

<212> PRT

<213> Homo sapiens

<400> 2741

```

Met His Pro His Gly Ser Pro Thr Leu His Arg Arg Lys Leu Arg Leu
  1              5              10              15
Val Arg Gly Val Leu Ser Cys Arg Thr Ser Trp Pro Asp Pro Arg Gln
      20              25              30
Val Ser Leu Gln Ser Pro Ser Ser Ser Pro Pro His Arg Pro Thr Ser
      35              40              45
Cys Trp Phe Gln Gly Arg Ser Pro Leu Cys Gln Ala Leu Ile Ser Trp
      50              55              60
Trp Tyr Pro Glu Pro Met Leu Ser Pro Gln Glu Gly Thr Ala Gln Pro
      65              70              75              80
Pro Ser Leu Ser Ala Gly Gln Lys His Leu Cys Val Thr Ser Leu Leu
      85              90              95
Ile Cys Gln Gly Leu Leu Trp Val Gly Thr Asp Gln Gly Val Ile Val
      100             105             110
Leu Leu Pro Val Pro Arg Leu Glu Gly Ile Pro Lys Ile Thr Gly Lys
      115             120             125
Gly Met Val Ser Leu Asn Gly His Cys Gly Pro Val Ala Phe Leu Ala
      130             135             140
Val Ala Thr Ser Ile Leu Ala Pro Asp Ile Leu Arg Ser Asp Gln Glu
      145             150             155             160
Glu Ala Glu Gly Pro Arg Ala Glu Glu Asp Lys Pro Asp Gly Gln Ala
      165             170             175
His Glu Pro Met Pro Asp Ser His Val Gly Arg Glu Leu Thr Arg Lys
      180             185             190
Lys Gly Ile Leu Leu Gln Tyr Arg Leu Arg Ser Thr Ala His Leu Pro
      195             200             205
Gly Pro Leu Leu Ser Met Arg Glu Pro Ala Pro Ala Asp Gly Ala Ala
      210             215             220
Leu Glu His Ser Glu Glu Asp Gly Ser Ile Tyr Glu Met Ala Asp Asp

```

225 230 235 240
 Pro Asp Val Trp Val Arg Ser Arg Pro Cys Ala Arg Asp Ala His Arg
 245 250 255
 Lys Glu Ile Cys Ser Val Ala Ile Ile Ser Gly Gly Gln Gly Tyr Arg
 260 265 270
 Asn Phe Gly Ser Ala Leu Gly Ser Ser Gly Arg Gln Ala Pro Cys Gly
 275 280 285
 Glu Thr Asp Ser Thr Leu Leu Ile Trp Gln Val Pro Leu Met Leu
 290 295 300

<210> 2742

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2742

Met Pro Ser Ser Leu Gly Leu Cys Ile Cys Ile Ser Phe Ser Phe Leu
 1 5 10 15
 Leu Tyr Thr Ala Ala Phe Gln Phe Phe Leu Val Phe Leu Ser Leu Pro
 20 25 30
 Pro Ala Ser Ser Trp Ser Leu Ser Cys Ser Val Ile Leu Leu Ser Leu
 35 40 45
 Ile Ser Cys Pro Gln Val Ser Val Gly Leu Cys Ser Pro Ala Ala His
 50 55 60
 Ser Cys His Gly Thr His His Cys Phe Gln Leu Phe Pro Thr Ser Tyr
 65 70 75 80
 Pro Asn Tyr Ala Ile Val Pro Ile Ser Thr Leu Ile Gln Ala Arg Gln
 85 90 95
 Lys Ala Val Pro Trp Ala Ala Pro His Lys Pro Glu His Cys Arg Ser
 100 105 110
 Val Ser Phe Phe Thr Leu Cys Pro Glu Gly Arg Ala Arg Val Val Phe
 115 120 125
 Phe

<210> 2743

<211> 200

<212> PRT

<213> Homo sapiens

<400> 2743

```

Met Ala Asp Glu Glu Ala Glu Gln Glu Arg Leu Ser Cys Gly Glu Gly
  1              5              10              15
Gly Cys Val Ala Glu Leu Gln Arg Leu Gly Glu Arg Leu Gln Glu Leu
      20              25              30
Glu Leu Gln Leu Arg Glu Ser Arg Val Pro Ala Val Glu Ala Ala Thr
      35              40              45
Asp Tyr Cys Gln Gln Leu Cys Gln Thr Leu Leu Glu Tyr Ala Glu Lys
      50              55              60
Trp Lys Thr Ser Glu Asp Pro Leu Pro Leu Leu Glu Val Tyr Thr Val
      65              70              75              80
Ala Ile Gln Ser Tyr Val Lys Ala Arg Pro Tyr Leu Thr Ser Glu Cys
      85              90              95
Glu Asn Val Ala Leu Val Leu Glu Arg Leu Ala Leu Ser Cys Val Glu
      100             105             110
Leu Leu Leu Cys Leu Pro Val Glu Leu Ser Asp Lys Gln Trp Glu Gln
      115             120             125
Phe Gln Thr Leu Val Gln Val Ala His Glu Lys Leu Met Glu Asn Gly
      130             135             140
Ser Cys Glu Leu His Phe Leu Ala Thr Leu Ala Gln Glu Thr Gly Val
      145             150             155             160
Trp Lys Asn Pro Val Leu Cys Thr Ile Leu Ser Gln Glu Pro Leu Asp
      165             170             175
Lys Asp Lys Gly Phe His Pro Gly Tyr His Ile Thr Phe Ser Arg His
      180             185             190
Val Phe Leu Gly Ser Ser Trp Leu
      195             200

```

<210> 2744

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2744

```

Met Glu Met Gly Gly Val Trp Gly Lys Ser Arg Ser Leu Ser Gly Ser
  1             5             10             15
Ala Pro Ala Val Lys Tyr Leu Ala Cys Cys Ser Val Pro Val Ser Ser
      20             25             30
Thr Gln Ala Gly Leu Pro Asp His Ser Ala Leu Ser Ala Pro Pro Trp
      35             40             45
Leu Trp Ser Glu Pro Val Glu Arg Gly Thr Leu Ser Gln Gly Pro Ser
      50             55             60
His Ile Ala Ala Ala Ala Ala Pro Ser Val Ser Ser Leu His Leu Leu
      65             70             75             80
Thr Gly Pro Pro Ala Arg His Leu Leu His Ser Thr Thr Ile Thr Trp
      85             90             95
Val Leu Leu Ala Leu Ala Trp Leu Ala Tyr Leu Val Ile Lys Ser
      100            105            110

```

<210> 2745

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2745

```

Met Gly Gln Gly Lys Arg Val Asp Leu Gly Leu Gln Ser Pro Cys Ala
  1             5             10             15
Leu Ser Gln Trp Asn Phe Pro Leu Leu Met Leu Val Trp Lys Leu Ala
      20             25             30
Pro Ala Leu Cys Cys Gly Asn Thr Met Val Leu Lys Pro Ala Glu Gln
      35             40             45
Thr Pro Leu Thr Ala Leu Tyr Leu Gly Ser Leu Ile Lys Glu Val Arg
      50             55             60
His Pro Lys Arg Lys Tyr His Met Phe Leu Val Thr Phe Pro Leu Leu

```

65 70 75 80
 Gly Thr Arg Pro Pro Ser Arg Asp Gly Thr Val Ala Asp Cys Trp Gln
 85 90 95
 Ser Ser Gly Lys Gly Met Thr Ser Ser Val Leu Phe Gly Asp Cys Thr
 100 105 110
 Phe Phe Leu Leu Leu Val Ala Thr Glu Leu Glu Lys Leu His Ser Ser
 115 120 125
 Gln Trp Ser
 130

<210> 2746

<211> 148

<212> PRT

<213> Homo sapiens

<400> 2746

Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr Gly Asn Ala Gln Glu
 1 5 10 15
 Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys Gln His Gly Glu Glu
 20 25 30
 Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val Leu Asp Glu Leu Asp
 35 40 45
 Met Glu Leu Ala Phe Leu Thr Ile Val Cys Met Glu Glu Phe Glu Asp
 50 55 60
 Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu Tyr Ala Pro Gly Leu
 65 70 75 80
 Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly Asp Arg Gly Met Gln
 85 90 95
 Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala Leu Gln Pro Pro His
 100 105 110
 Glu Tyr Val Pro Trp Val Thr Val Asn Gly Val Arg Ile Phe Leu Ala
 115 120 125
 Leu Ser Leu Thr Leu Ile Val Pro Trp Ser Gln Gly Trp Thr Arg Gln
 130 135 140
 Arg Asp Gln Arg

145

<210> 2747

<211> 124

<212> PRT

<213> Homo sapiens

<400> 2747

```

Met Gln Arg Ala Gly Asn Pro Val Leu Thr Leu Pro Gly Met Pro Phe
  1             5             10             15
Gly Lys Thr Ser Val Pro Glu Ala Glu Gly Gln Cys Leu Leu Leu Pro
          20             25             30
Gly Ala Gln Leu Leu Ser Gly Pro Gln Thr His Ala Ala Cys Pro Gly
          35             40             45
Ala Ser Pro Asn Ser Phe Val Tyr Phe Pro Val Gly Asn Val Leu Ile
          50             55             60
Pro Leu Gly Cys Lys Asp Gly Thr Thr Pro Glu Gly Trp Thr Val Ser
          65             70             75             80
Arg Cys Pro Ala Asn Ile Cys Gly Ile Ser Ser Thr Gln Gln Gly Lys
          85             90             95
Arg Trp Arg Gln Lys Pro Leu Gln Ala Pro Glu Gly Thr His Phe Pro
          100            105            110
Asp Pro Val His Leu Pro Asp Pro Arg Pro Pro Pro
          115            120

```

<210> 2748

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2748

```

Met Ser Leu Met Pro Lys Met His Leu Leu Phe Pro Leu Thr Leu Val
  1             5             10             15
Arg Ser Phe Trp Ser Asp Met Met Asp Ser Ala Gln Ser Phe Ile Thr

```


20 25 30
 Ser Ser Trp Thr Phe Tyr Leu Gln Ala Asp Asp Gly Lys Ile Val Ile
 35 40 45
 Phe Gln Ser Lys Pro Glu Ile Gln Tyr Ala Pro His Leu Glu Gln Glu
 50 55 60
 Pro Thr Asn Leu Arg Glu Ser Ser Leu Ser Lys Met Ser Ser Asp Leu
 65 70 75 80
 Gln Met Arg Asn Ser Gln Ala His Arg Asn Phe Leu Glu Asp Gly Glu
 85 90 95
 Ser Asp Gly Phe Leu Arg Cys Leu Ser Leu Asn Ser Gly Trp Ile Leu
 100 105 110
 Thr Thr Thr Leu Val Leu Ser Val Met Val Leu Leu Trp Ile Cys Cys
 115 120 125
 Ala Thr Val Ala Thr Ala Val Glu Gln Tyr Val Pro Ser Glu Lys Leu
 130 135 140
 Ser Ile Tyr Gly Asp Leu Glu Phe Met Asn Glu Gln Lys Leu Asn Arg
 145 150 155 160
 Tyr Pro Ala Ser Ser Leu Val Val Val Arg Ser Lys Thr Glu Asp His
 165 170 175
 Glu Glu Ala Gly Pro Leu Pro Thr Lys Val Asn Leu Ala His Ser Glu
 180 185 190
 Ile

<210> 2749

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2749

Met Ser Val Leu Arg Pro Leu Asp Lys Leu Pro Gly Leu Asn Thr Ala
 1 5 10 15
 Thr Ile Leu Leu Val Gly Thr Glu Asp Ala Leu Leu Gln Gln Leu Ala
 20 25 30
 Asp Ser Met Leu Lys Glu Asp Cys Ala Ser Glu Leu Lys Val His Leu

35 40 45
 Ala Lys Ser Leu Pro Leu Pro Ser Ser Val Asn Arg Pro Arg Ile Asp
 50 55 60
 Leu Ile Val Phe Val Val Asn Leu His Ser Lys Tyr Ser Leu Gln Asn
 65 70 75 80
 Thr Glu Glu Ser Leu Arg His Val Asp Ala Ser Phe Phe Leu Gly Lys
 85 90 95
 Val Cys Phe Leu Ala Thr Gly Gly Lys Tyr Val Pro Arg Leu Leu Leu
 100 105 110
 Pro Thr Pro Ser Gln Gly Lys Ala Gly Ala Ala Val Gly Phe Leu Leu
 115 120 125
 Arg His Pro Gly
 130

<210> 2750

<211> 176

<212> PRT

<213> Homo sapiens

<400> 2750

Met Thr Arg Arg Gly Val Cys Val Cys Val His Val Cys Ile Cys Val
 1 5 10 15
 Leu Val Cys Ser His Ser Ile Pro Leu Cys Ala Cys Val Leu Ala Ala
 20 25 30
 Trp Asp Ser Ala Val Phe Trp Glu Gly Gly Gly Glu Leu Ser His Val
 35 40 45
 Leu Tyr Tyr Ile Phe Phe Glu Met Gly Ser Cys Ser Val Ala Gln Ala
 50 55 60
 Gly Val Gln Trp Cys Asp Leu Ser Ser Leu Gln Leu Leu Pro Pro Gly
 65 70 75 80
 Ser Ser Ser Ser Pro Ala Ser Ala Cys Gln Ile Ala Gly Ile Thr Gly
 85 90 95
 Val Tyr His His Ser Gln Leu Ile Phe Val Phe Leu Val Glu Met Gly
 100 105 110
 Phe Tyr His Val Gly Gln Ala Gly Leu Glu Leu Leu Ala Ser Gly Asp

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Pro Pro Ala Leu Ala Ser Gln Ser Ala Glu Ile Thr Gly Val Asn Tyr | | |
| 130 | 135 | 140 |
| Arg Ala Trp Pro His Val Leu Tyr Phe Phe Gln Val Ile Leu Lys Ser | | |
| 145 | 150 | 155 |
| Thr Thr Arg Asn Val Gly Met Gly Phe Gly Met Tyr Asn Gly Asn Arg | | |
| 165 | 170 | 175 |

<210> 2751

<211> 169

<212> PRT

<213> Homo sapiens

<400> 2751

| | | |
|---|-----|-----|
| Met Phe Ala Glu Gln Met Asn Ala Trp Ser Arg Pro Gln Ser Arg Val | | |
| 1 | 5 | 10 |
| Trp Trp Gln Gly Gly Ser Gly Arg Glu Phe Thr Gln Gln Pro Gly Asp | | |
| 20 | 25 | 30 |
| Arg Gly Glu Gln Glu Ala Arg Gly Tyr Pro Ser Met Ser Gly Thr Arg | | |
| 35 | 40 | 45 |
| Gly Pro Trp Trp Ala Ala Val Trp Glu Thr His Gly Ser Trp Pro His | | |
| 50 | 55 | 60 |
| Leu Arg Pro Pro Ser Ser Leu Ile Thr Cys Leu Pro Pro Leu Gln Arg | | |
| 65 | 70 | 75 |
| Phe Arg Phe Cys Gly Asp Leu Asp Cys Pro Asp Trp Val Leu Ala Glu | | |
| 85 | 90 | 95 |
| Ile Ser Thr Leu Ala Lys Met Val Glu Cys Thr Gly Ser Ser Leu Gly | | |
| 100 | 105 | 110 |
| Gly Gly Gly Val Leu Gly Val Gly Ile Val Gly Val Glu Asp Gly Glu | | |
| 115 | 120 | 125 |
| Val Ser Leu Gly Leu Gly Pro Gln Cys Ser Gln Pro Val Leu Pro Cys | | |
| 130 | 135 | 140 |
| Phe Val Thr Leu Ile Ser Gly Trp Pro Ala Leu Ser Leu Ser Pro Gly | | |
| 145 | 150 | 155 |
| Arg Arg Gly Glu Val Cys Gln Pro Gly | | 160 |

165

<210> 2752

<211> 270

<212> PRT

<213> Homo sapiens

<400> 2752

```

Met Pro Thr Arg Gly Glu Glu Ala Val Leu Ser Arg Pro Leu Leu Pro
  1             5             10             15
Arg Pro Pro Arg Arg Pro Gly Leu Gly Cys Gly Gly Pro Lys Ala Pro

                20                25                30
Ala Leu Leu Val Ile Ser Arg Pro Glu Pro Arg Gln Ala Ser Ala Pro
   35             40             45
Ser Arg Lys Pro Gly Arg Pro Gly Ala Thr Gly Lys Lys Ala Arg Ser
   50             55             60
Arg Lys Pro Gly Cys Cys Gly Pro Thr Asn His Lys Ser Tyr Glu Arg
   65             70             75             80
Gly Ser Arg Arg Arg Glu Lys Ser Gln Tyr Arg Leu Val Pro Ala Thr
                85                90                95
Phe Gly Lys Lys Lys Phe Leu Thr Arg Arg Gly Ala Cys Phe Ala Leu
   100            105            110
Gly Arg Val Ala Leu Ala Gly Ala Trp Val Thr Pro Ile Pro Pro Trp
   115            120            125
Arg Leu Thr Ser Cys Arg Gly Gly Pro Pro Ala Ser Ser Trp Pro Arg
   130            135            140
Ala Gln Gly Ala Ser Cys Pro Gly Thr Ala Asp Pro Gly Ile Ala Ser
   145            150            155            160
Pro Gly Arg Ala Gly Gly Glu Gly Gly Arg Gly Gly Arg Gly Thr Ala
                165                170                175
Gly Cys Ser Pro Pro Trp Gly Ile Arg Gly Ala Glu Pro Arg Trp Arg
                180                185                190
Pro Arg Gly Pro Gly Ser Arg Glu Arg Thr Ala Glu Trp Pro Pro Glu
                195                200                205

```

Leu Gly Leu Leu Leu Ser Pro Thr His Leu Pro Ser Asp Thr Val Ser
 210 215 220
 Thr Leu Gln Ala Ala Gly Arg Gly Gly Ala Pro Asn Gln Phe Ala Pro
 225 230 235 240
 Gly Leu Ser Ala Arg Leu Pro His Gly Asn Arg Thr Ala Thr Gly Thr
 245 250 255
 Asp Gly Val Thr Tyr Leu Pro Met Gln Arg Gln Lys Leu Ala
 260 265 270

<210> 2753

<211> 814

<212> PRT

<213> Homo sapiens

<400> 2753

Met Ala Gly Val Gly Ala Ala Ala Leu Ser Leu Leu Leu His Leu Gly
 1 5 10 15
 Ala Leu Ala Leu Ala Ala Gly Ala Glu Gly Gly Ala Val Pro Arg Glu
 20 25 30
 Pro Pro Gly Gln Gln Thr Thr Ala His Ser Ser Val Leu Ala Gly Asn
 35 40 45
 Ser Gln Glu Gln Trp His Pro Leu Arg Glu Trp Leu Gly Arg Leu Glu
 50 55 60
 Ala Ala Val Met Glu Leu Arg Glu Gln Asn Lys Asp Leu Gln Thr Arg
 65 70 75 80
 Val Arg Gln Leu Glu Ser Cys Glu Cys His Pro Ala Ser Pro Gln Cys
 85 90 95
 Trp Gly Leu Gly Arg Ala Trp Pro Glu Gly Ala Arg Trp Glu Pro Asp
 100 105 110
 Ala Cys Thr Ala Cys Val Cys Gln Asp Gly Ala Ala His Cys Gly Pro
 115 120 125
 Gln Ala His Leu Pro His Cys Arg Gly Cys Ser Gln Asn Gly Gln Thr
 130 135 140
 Tyr Gly Asn Gly Glu Thr Phe Ser Pro Asp Ala Cys Thr Thr Cys Arg
 145 150 155 160

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Glu | Gly | Thr | Ile | Thr | Cys | Asn | Gln | Lys | Pro | Cys | Pro | Arg | Gly |
| | | | | 165 | | | | 170 | | | | 175 | | | |
| Pro | Cys | Pro | Glu | Pro | Gly | Ala | Cys | Cys | Pro | His | Cys | Lys | Pro | Gly | Cys |
| | | | | 180 | | | | 185 | | | | 190 | | | |
| Asp | Tyr | Glu | Gly | Gln | Leu | Tyr | Glu | Glu | Gly | Val | Thr | Phe | Leu | Ser | Ser |
| | | | | 195 | | | | 200 | | | | 205 | | | |
| Ser | Lys | Pro | Cys | Leu | Gln | Cys | Thr | Cys | Leu | Arg | Ser | Arg | Val | Arg | Cys |
| | | | | 210 | | | | 215 | | | | 220 | | | |
| Met | Ala | Leu | Lys | Cys | Pro | Pro | Ser | Pro | Cys | Pro | Glu | Pro | Val | Leu | Arg |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Pro | Gly | His | Cys | Cys | Pro | Thr | Cys | Gln | Gly | Cys | Thr | Glu | Gly | Gly | Ser |
| | | | | 245 | | | | 250 | | | | 255 | | | |
| His | Trp | Glu | His | Gly | Gln | Glu | Trp | Thr | Thr | Pro | Gly | Asp | Pro | Cys | Arg |
| | | | | 260 | | | | 265 | | | | 270 | | | |
| Ile | Cys | Arg | Cys | Leu | Glu | Gly | His | Ile | Gln | Cys | Arg | Gln | Arg | Glu | Cys |
| | | | | 275 | | | | 280 | | | | 285 | | | |
| Ala | Ser | Leu | Cys | Pro | Tyr | Pro | Ala | Arg | Pro | Leu | Pro | Gly | Thr | Cys | Cys |
| | | | | 290 | | | | 295 | | | | 300 | | | |
| Pro | Val | Cys | Asp | Gly | Cys | Phe | Leu | Asn | Gly | Arg | Glu | His | Arg | Ser | Gly |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Glu | Pro | Val | Gly | Ser | Gly | Asp | Pro | Cys | Ser | His | Cys | Arg | Cys | Ala | Asn |
| | | | | 325 | | | | 330 | | | | 335 | | | |
| Gly | Ser | Val | Gln | Cys | Glu | Pro | Leu | Pro | Cys | Pro | Pro | Val | Pro | Cys | Arg |
| | | | | 340 | | | | 345 | | | | 350 | | | |
| His | Pro | Gly | Lys | Ile | Pro | Gly | Gln | Cys | Cys | Pro | Val | Cys | Asp | Gly | Cys |
| | | | | 355 | | | | 360 | | | | 365 | | | |
| Glu | Tyr | Gln | Gly | His | Gln | Tyr | Gln | Ser | Gln | Glu | Thr | Phe | Arg | Leu | Gln |
| 370 | | | | 375 | | | | 380 | | | | | | | |
| Glu | Arg | Gly | Leu | Cys | Val | Arg | Cys | Ser | Cys | Gln | Ala | Gly | Glu | Val | Ser |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Cys | Glu | Glu | Gln | Glu | Cys | Pro | Val | Thr | Pro | Cys | Ala | Leu | Pro | Ala | Ser |
| | | | | 405 | | | | 410 | | | | 415 | | | |
| Gly | Arg | Gln | Leu | Cys | Pro | Ala | Cys | Glu | Leu | Asp | Gly | Glu | Glu | Phe | Ala |
| | | | | 420 | | | | 425 | | | | 430 | | | |
| Glu | Gly | Val | Gln | Trp | Glu | Pro | Asp | Gly | Arg | Pro | Cys | Thr | Ala | Cys | Val |
| 435 | | | | 440 | | | | 445 | | | | | | | |

Cys Gln Asp Gly Val Pro Glu Cys Gly Ala Val Leu Cys Pro Pro Ala
 450 455 460
 Pro Cys Gln His Pro Thr Gln Pro Pro Gly Ala Cys Cys Pro Ser Cys
 465 470 475 480
 Asp Ser Cys Thr Tyr His Ser Gln Val Tyr Ala Asn Gly Gln Asn Phe
 485 490 495
 Thr Asp Ala Asp Ser Pro Cys His Ala Cys His Cys Gln Asp Gly Thr
 500 505 510
 Val Thr Cys Ser Leu Val Asp Cys Pro Pro Thr Thr Cys Ala Arg Pro
 515 520 525
 Gln Ser Gly Pro Gly Gln Cys Cys Pro Arg Cys Pro Asp Cys Ile Leu
 530 535 540
 Glu Glu Glu Val Phe Val Asp Gly Glu Ser Phe Ser His Pro Arg Asp
 545 550 555 560
 Pro Cys Gln Glu Cys Arg Cys Gln Glu Gly His Ala His Cys Gln Pro
 565 570 575
 Arg Pro Cys Pro Arg Ala Pro Cys Ala His Pro Leu Pro Gly Thr Cys
 580 585 590
 Cys Pro Asn Asp Cys Ser Gly Cys Ala Phe Gly Gly Lys Glu Tyr Pro
 595 600 605
 Ser Gly Ala Asp Phe Pro His Pro Ser Asp Pro Cys Arg Leu Cys Arg
 610 615 620
 Cys Leu Ser Gly Asn Val Gln Cys Leu Ala Arg Arg Cys Val Pro Leu
 625 630 635 640
 Pro Cys Pro Glu Pro Val Leu Leu Pro Gly Glu Cys Cys Pro Gln Cys
 645 650 655
 Pro Ala Ala Pro Ala Pro Ala Gly Cys Pro Arg Pro Gly Ala Ala His
 660 665 670
 Ala Arg His Gln Glu Tyr Phe Ser Pro Pro Gly Val Pro Cys Arg Arg
 675 680 685
 Cys Leu Cys Leu Asp Gly Ser Val Ser Cys Gln Arg Leu Pro Cys Pro
 690 695 700
 Pro Ala Pro Cys Ala His Pro Arg Gln Gly Pro Cys Cys Pro Ser Cys
 705 710 715 720
 Asp Gly Cys Leu Tyr Gln Gly Lys Glu Phe Ala Ser Gly Glu Arg Phe
 725 730 735

Pro Ser Pro Thr Ala Ala Cys His Leu Cys Leu Cys Trp Glu Gly Ser
 740 745 750
 Val Ser Cys Glu Pro Lys Ala Cys Ala Pro Ala Leu Cys Pro Phe Pro
 755 760 765
 Ala Arg Gly Asp Cys Cys Pro Asp Cys Asp Gly Glu Gly His Gly Ile
 770 775 780
 Gly Ser Cys Arg Gly Gly Met Arg Glu Thr Arg Gly Leu Gly Gln Asn
 785 790 795 800
 Asn Leu Tyr Cys Pro Arg Val Asp Leu Lys Tyr Leu Leu Gln
 805 810

<210> 2754

<211> 138

<212> PRT

<213> Homo sapiens

<400> 2754

Met Ala Val Gly Val Leu Thr Gln Thr Val Gly Pro Trp Pro Arg Pro
 1 5 10 15
 Val Ala Tyr Leu Ser Glu Gln Leu Asp Arg Val Ser Lys Gly Trp Pro
 20 25 30
 Pro Gly Leu Lys Ala Leu Ala Ala Thr Ala Leu Leu Ala Gln Glu Ala
 35 40 45
 Asp Lys Leu Thr Leu Arg Gln Asn Leu Asn Ile Lys Asp Pro His Ala
 50 55 60
 Val Val Thr Ser Val Thr Thr Lys Gly His His Trp Leu Thr Asn Ala
 65 70 75 80
 Arg Leu Thr Lys Tyr Gln Ser Leu Leu Cys Glu Asn Pro His Ile Thr
 85 90 95
 Ile Glu Val Cys Asn Thr Leu Asn Pro Ser Thr Leu Leu Leu Gly Ser
 100 105 110
 Glu Ser Pro Val Lys His Asn Cys Val Glu Val Leu Asp Ser Val Tyr
 115 120 125
 Phe Ser Arg Pro Asn Leu Arg Asp His Pro

130

135

<210> 2755

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2755

Met Pro Leu Val Leu Gly Gly Val Ala Ala Arg Pro Ala Cys Glu Thr
 1 5 10 15
 Ser Cys Leu Cys Phe Arg Pro Trp Arg Leu Ser Val Ser Ser Leu Ser
 20 25 30
 Pro Cys Ser Ala Leu Pro Leu Gly Lys Pro Leu Gln Pro Ile Leu Cys
 35 40 45
 Leu Arg Phe Cys His Leu Cys Leu Cys Leu Leu Pro Val Trp Arg Trp
 50 55 60
 Ser Ser Leu Gly Pro Pro Leu Met Ile Trp Thr Arg Val Ser Ile Leu
 65 70 75 80
 Lys Pro Pro Pro Lys Pro Leu Cys Leu Lys Pro Leu Pro Pro Thr Thr
 85 90 95
 Trp Gly Ser Thr Val Thr Asn Ser Ala Ala Asp Glu Ala Ser Leu Gly
 100 105 110
 Ala Leu Leu Ala Thr Gly Ser Trp Leu Ser Arg Arg Pro Gly Leu Ser
 115 120 125
 Leu Ser Gly Ser Gly Ala
 130

<210> 2756

<211> 181

<212> PRT

<213> Homo sapiens

<400> 2756

Met Cys Lys Ile Gly Gln Ile Leu Val Thr Phe Val Tyr Gln Asp Tyr

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ala Asp Phe Trp Pro Gly Val Val Asp Arg Ala Cys Asn Ser Ser Thr | | | |
| 20 | 25 | 30 | |
| Leu Gly Gly Arg Gly Gly Arg Ile Met Gly Ser Gly Asp Gly Asp His | | | |
| 35 | 40 | 45 | |
| Pro Gly Gln His Gly Glu Thr Pro Ser Leu Leu Asn Met Gln Lys Leu | | | |
| 50 | 55 | 60 | |
| Ala Gly Arg Gly Gly Ala Leu Leu Ser Ser Gln Leu Pro Gly Arg Leu | | | |
| 65 | 70 | 75 | 80 |
| Arg Gln Glu Asn Arg Leu Ser Leu Gly Gly Gly Gly Cys Ser Glu Val | | | |
| 85 | 90 | 95 | |
| Arg Ser Tyr His Cys Thr Pro Ala Trp Gln Gln Ser Glu Ala Leu Ser | | | |
| 100 | 105 | 110 | |
| Gln Lys Lys Lys Lys Lys Lys Lys Ile Met Leu Ile Ser Val Asn Cys | | | |
| 115 | 120 | 125 | |
| Leu Ser Pro Gly Gly Arg Gly Cys Ser Lys Leu Ser Ala Pro Leu Gln | | | |
| 130 | 135 | 140 | |
| Ser Ser Leu Ser Asp Arg Ala Gln Leu Cys Leu Lys Lys Lys Lys Asn | | | |
| 145 | 150 | 155 | 160 |
| Tyr Ala Ala Leu Phe Ser Leu Gly Ile Ile Pro Ser Phe Ser Ser Leu | | | |
| 165 | 170 | 175 | |
| Trp Arg Arg Arg Val | | | |
| 180 | | | |

<210> 2757

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2757

| | | | |
|---|----|----|----|
| Met Tyr Val His Thr Thr Gly Ile Glu Glu Ala Lys Ile Phe Ser Phe | | | |
| 1 | 5 | 10 | 15 |
| Val Ile Val Ile Phe Lys Glu Trp Thr Ser Gly Leu Phe Phe Met Lys | | | |
| 20 | 25 | 30 | |
| Leu His Ser Phe Cys Phe Pro Asn Ile Pro Val Gly Asp Glu Glu Ser | | | |

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Leu Phe Phe Phe Ser Ala Arg Ser Ile Tyr Arg Asn Leu Asn Ser Ile | | |
| 50 | 55 | 60 |
| Ala Ile Gln Gly Arg Ala Asn Thr Val Ser Phe Leu Asp Pro Glu Gly | | |
| 65 | 70 | 75 |
| Ile Thr Gly Leu Pro Gln Trp Pro Thr Leu Pro Tyr Leu Pro Lys Glu | | |
| 85 | 90 | 95 |
| Asn Ala Gly Gln Leu Tyr Leu Asn Val Leu Gln His Val Leu Phe Leu | | |
| 100 | 105 | 110 |
| Leu Glu Cys Phe Leu Leu Gly Phe Asp Ala Leu Asn Glu | | |
| 115 | 120 | 125 |

<210> 2758

<211> 656

<212> PRT

<213> Homo sapiens

<400> 2758

| | | |
|---|-----|-----|
| Met Ser Glu Leu Ser Asp Glu Ala Ser Glu Pro Glu Leu Leu Asn Arg | | |
| 1 | 5 | 10 |
| Ser Leu Ser Met Trp His Gly Leu Gly Thr Gln Val Ser Gly Glu Glu | | |
| 20 | 25 | 30 |
| Leu Asp Val Pro Leu Asp Leu His Thr Ala Ala Ser Ile Gly Gln Tyr | | |
| 35 | 40 | 45 |
| Glu Val Val Lys Glu Cys Val Gln Arg Arg Glu Leu Asp Leu Asn Lys | | |
| 50 | 55 | 60 |
| Lys Asn Gly Gly Gly Trp Thr Pro Leu Met Tyr Ala Ser Tyr Ile Gly | | |
| 65 | 70 | 75 |
| His Asp Thr Ile Val His Leu Leu Leu Glu Ala Gly Val Ser Val Asn | | |
| 85 | 90 | 95 |
| Val Pro Thr Pro Glu Gly Gln Thr Pro Leu Met Leu Ala Ser Ser Cys | | |
| 100 | 105 | 110 |
| Gly Asn Glu Ser Ile Ala Tyr Phe Leu Leu Gln Gln Gly Ala Glu Leu | | |
| 115 | 120 | 125 |
| Glu Met Lys Asp Ile Gln Gly Trp Thr Ala Leu Phe His Cys Thr Ser | | |

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Ala Gly His Gln His Met Val Arg Phe Leu Leu Asp Ser Gly Ala Asn | | | |
| 145 | 150 | 155 | 160 |
| Ala Asn Val Arg Glu Pro Ile Cys Gly Phe Thr Pro Leu Met Glu Ala | | | |
| 165 | 170 | 175 | |
| Ala Ala Ala Gly His Glu Ile Ile Val Gln Tyr Phe Leu Asn His Gly | | | |
| 180 | 185 | 190 | |
| Val Lys Val Asp Ala Arg Asp His Ser Gly Ala Thr Ala Arg Met Leu | | | |
| 195 | 200 | 205 | |
| Ala Lys Gln Tyr Gly His Met Lys Ile Val Ala Leu Met Asp Thr Tyr | | | |
| 210 | 215 | 220 | |
| Ser Pro Ser Leu Pro Lys Ser Leu Tyr Arg Ser Pro Glu Lys Tyr Glu | | | |
| 225 | 230 | 235 | 240 |
| Asp Leu Ser Ser Ser Asp Glu Ser Cys Pro Ala Pro Gln Arg Gln Arg | | | |
| 245 | 250 | 255 | |
| Pro Cys Arg Lys Lys Gly Val Ser Ile His Glu Gly Pro Arg Ala Leu | | | |
| 260 | 265 | 270 | |
| Ala Arg Ile Thr Gly Ile Gly Leu Gly Gly Arg Ala Pro Arg Pro Arg | | | |
| 275 | 280 | 285 | |
| Tyr Glu Gln Ala Pro Pro Arg Gly Tyr Val Thr Phe Asn Ser Ser Gly | | | |
| 290 | 295 | 300 | |
| Glu Asn Pro Leu Glu Glu Glu Gly Leu Cys Cys Arg Asp Val Thr Ser | | | |
| 305 | 310 | 315 | 320 |
| Pro Ile Asn Glu Arg Asp Val Glu Ser Ser Ser Ser Ser Ser Ser Arg | | | |
| 325 | 330 | 335 | |
| Glu Glu His Ala Phe Cys Ala Asn Leu Gly Pro Val Gln Ser Ser Ser | | | |
| 340 | 345 | 350 | |
| Ser Ser Glu Gly Leu Ala Arg Ala Gln Gly Leu Ser Ser Glu Ala Ser | | | |
| 355 | 360 | 365 | |
| Val Glu Ser Asn Glu Asp Ser Asp His Ala Cys Lys Ser Ser Ala Arg | | | |
| 370 | 375 | 380 | |
| Lys Gln Ala Lys Ser Tyr Met Lys Thr Lys Asn Pro Asp Ser Gln Trp | | | |
| 385 | 390 | 395 | 400 |
| Pro Pro Arg Ala Ala Thr Asp Arg Glu Gly Phe Leu Ala Glu Ser Ser | | | |
| 405 | 410 | 415 | |
| Pro Gln Thr Gln Arg Ala Pro Tyr Ser Gly Pro Gln Asp Leu Ala Ala | | | |

| | | | |
|---|-----|-----|-----|
| 420 | 425 | 430 | |
| Leu Leu Glu Gln Ile Gly Cys Leu Lys Tyr Leu Gln Val Phe Glu Glu | | | |
| 435 | 440 | 445 | |
| Gln Asp Val Asp Leu Arg Ile Phe Leu Thr Leu Thr Glu Ser Asp Leu | | | |
| 450 | 455 | 460 | |
| Lys Glu Ile Gly Ile Thr Leu Phe Gly Pro Lys Arg Lys Met Thr Ser | | | |
| 465 | 470 | 475 | 480 |
| Ala Ile Ala Arg Trp His Ser Ser Ala Arg Pro Pro Gly Asp Ala Leu | | | |
| 485 | 490 | 495 | |
| Glu Leu Ala Tyr Ala Asp Arg Leu Glu Ala Glu Met Gln Glu Leu Ala | | | |
| 500 | 505 | 510 | |
| Ile Gln Leu His Lys Arg Cys Glu Glu Val Glu Ala Thr Arg Gly Gln | | | |
| 515 | 520 | 525 | |
| Val Cys Gln Glu Gln Glu Leu Arg Ala Val Val Glu Ser Cys Leu Leu | | | |
| 530 | 535 | 540 | |
| Glu Gln Asp Arg Ala Arg Glu Asp Leu Gln Ala Arg Leu Arg Glu Thr | | | |
| 545 | 550 | 555 | 560 |
| Trp Ala Leu Ala Arg Asp Ala Ala Leu Val Leu Asp Gln Leu Arg Ala | | | |
| 565 | 570 | 575 | |
| Cys Gln Ala Glu Leu Ser Ser Arg Val Arg Gln Asp Gln Pro Pro Gly | | | |
| 580 | 585 | 590 | |
| Ala Ala Thr Leu Gly Leu Ala Val Pro Pro Ala Asp Ser Lys Gly Trp | | | |
| 595 | 600 | 605 | |
| Gln Ala Ser Leu Gln Ala Met Ser Leu Pro Glu Leu Ser Gly Ala Leu | | | |
| 610 | 615 | 620 | |
| Glu Asp Arg Val Arg Glu Met Gly Gln Ala Leu Cys Leu Val Thr Gln | | | |
| 625 | 630 | 635 | 640 |
| Ser Leu Glu Lys Leu Gln Val Leu Asn Gly Lys Lys Trp Arg Glu Thr | | | |
| 645 | 650 | 655 | |

<210> 2759

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2759

Met Ser Gly Lys Gly Gln Val Leu Pro Trp Asp Pro Arg Ala Arg Thr
 1 5 10 15
 Glu Leu Pro Glu Ala Pro Gly Ala Thr Arg Val Gly Pro Pro Ser Thr
 20 25 30
 Pro Ala Pro Arg Lys Val Arg His Pro Leu Pro Pro Ser Gln Ala Gly
 35 40 45
 Ile Leu Pro Ala Leu His Pro Leu Pro Cys Asp Val His Leu Pro Arg
 50 55 60
 Ser Arg Arg Trp Arg Cys Pro Thr Ser Ala Ala Ala Gly Gly Asp Arg
 65 70 75 80
 Arg Cys Ser Ser Ala Trp Arg Cys Gly Ala Met Ser Lys Gly Leu Glu
 85 90 95
 Asp Thr Glu Leu Ala Arg Val Arg Val Ala Arg Pro Ala Ala Thr Pro
 100 105 110
 Glu Ser Thr Leu Gln Arg Gly Ser Glu Pro Val Phe Arg Val Gln Gly
 115 120 125
 Arg Gly Gly Leu Ala Leu Ser Pro Ala Ser Gly Leu Cys Pro Arg Leu
 130 135 140
 Arg Pro Ala Leu Ser Pro Pro Pro Gln Pro Gln Val Arg Ala Arg Glu
 145 150 155 160
 Lys Gly Arg Gly Glu Arg Arg Ser Gly Ser Pro Asp
 165 170

<210> 2760

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2760

Met Pro Gly Pro Trp Leu Cys Pro Glu Phe Leu Leu Arg Lys Met Thr
 1 5 10 15
 Thr Leu Ser Cys Cys Leu Cys Ser Val Trp Phe Ser Asp Glu Asn Ser
 20 25 30
 Asn Gln Ser Ser Val Ser Asp Val Tyr Gln Leu Lys Val Asp Ser Ser

35 40 45
 Thr Asn Ser Ser Pro Ser Pro Gln Gln Ser Glu Ser Leu Ser Pro Ala
 50 55 60
 His Thr Ser Asp Phe Arg Thr Asp Asp Ser Gln Pro Pro Thr Leu Gly
 65 70 75 80
 Gln Glu Ile Leu Glu Glu Pro Ser Leu Pro Ser Ser Glu Val Ala Asp
 85 90 95
 Glu Pro Pro Thr Leu Thr Lys Glu Glu Pro Val Pro Leu Glu Thr Gln
 100 105 110
 Val Val Glu Glu Glu Glu Asp Ser Gly Ala Pro Pro Leu Lys Arg Phe
 115 120 125
 Cys Val Asp Gln Pro Thr Val Pro Gln Thr Ala Ser Glu Ser
 130 135 140

<210> 2761

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2761

Met Asn Asp His Gln Glu Lys Leu Glu Gln Ala Asp Ala Gln Lys Gly
 1 5 10 15
 Gly Glu Glu Gly His Val Pro Asp Asn Ser Cys Arg Gly Leu Gln Ala
 20 25 30
 Asp Gly Val Pro Glu Arg Thr Val Ile Gln Ile Ile Pro Ile Pro Lys
 35 40 45
 Asn Lys Glu Thr Arg Gly Gln Ala Ile Ser Lys Glu Ser Gln Thr Gly
 50 55 60
 Asn Pro Ser Arg Lys Leu Gly Ser Pro Leu Thr Gly Ser Trp Asp Trp
 65 70 75 80
 Ala His Glu Gly Asp Arg Tyr Cys Ser Ile Cys Asn Phe Leu Ser Ile
 85 90 95
 Arg Gly Ala Arg Cys
 100

<210> 2762

<211> 180

<212> PRT

<213> Homo sapiens

<400> 2762

```

Met Cys Leu Val Ala Phe Pro Ser Arg Pro Pro Glu Glu Pro Thr Thr
  1             5             10             15
Trp Thr Gly Tyr Phe Gly Lys Val Leu Met Ala Ser Thr Ser Tyr Leu
      20             25             30
Pro Ser Gln Val Thr Glu Met Phe Asn Gln Gly Arg Ala Phe Ala Thr
      35             40             45
Val Arg Leu Pro Phe Cys Gly His Lys Asn Ile Cys Ser Leu Ala Thr
      50             55             60
Ile Gln Lys Ile Pro Arg Leu Leu Val Gly Ala Ala Asp Gly Tyr Leu
      65             70             75             80
Tyr Met Tyr Asn Leu Asp Pro Gln Glu Gly Gly Glu Cys Ala Leu Met
      85             90             95
Lys Gln His Arg Leu Asp Gly Ser Leu Glu Thr Thr Asn Glu Ile Leu
      100            105            110
Asp Ser Ala Ser His Asp Cys Pro Leu Val Thr Gln Thr Tyr Gly Ala
      115            120            125
Ala Ala Gly Lys Gly Thr Tyr Val Pro Ser Ser Pro Thr Arg Leu Ala
      130            135            140
Tyr Thr Asp Asp Leu Gly Ala Val Gly Gly Ala Cys Leu Glu Asp Glu
      145            150            155            160
Ala Ser Ala Leu Arg Leu Asp Glu Asp Ser Glu His Pro Pro Met Ile
      165            170            175
Leu Arg Thr Asp
      180

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<210> 2763

<211> 208

<212> PRT

<213> Homo sapiens

<400> 2763

```

Met Lys Gln Arg Phe Ser Ala Leu Gln Leu Leu Lys Leu Leu Leu Leu
 1             5             10             15
Leu Gln Pro Pro Leu Pro Arg Ala Leu Arg Glu Ala Leu Cys Pro Glu
      20             25             30
Pro Cys Asn Cys Val Pro Asp Gly Ala Leu Arg Cys Pro Gly Pro Thr
      35             40             45
Ala Gly Leu Thr Arg Leu Ser Leu Ala Tyr Leu Pro Val Lys Val Ile
      50             55             60
Pro Ser Gln Ala Phe Arg Gly Leu Asn Glu Val Ile Lys Ile Leu Ile
      65             70             75             80
Gln Asn Thr Lys Asn Leu Arg Tyr Ile Glu Pro Gly Ala Phe Ile Asn
      85             90             95
Leu Pro Arg Leu Lys Tyr Leu Ser Ile Cys Asn Thr Gly Ile Arg Lys
      100            105            110
Phe Pro Asp Val Thr Lys Val Phe Ser Ser Glu Ser Asn Phe Ile Leu
      115            120            125
Glu Ile Cys Asp Asn Leu His Ile Thr Thr Ile Pro Gly Asn Ala Phe
      130            135            140
Gln Gly Met Asn Asn Glu Ser Val Thr Leu Lys Leu Tyr Gly Asn Gly
      145            150            155            160
Phe Glu Glu Val Gln Ser His Ala Phe Asn Gly Thr Thr Leu Thr Ser
      165            170            175
Leu Glu Leu Lys Glu Asn Val His Leu Glu Lys Met His Asn Gly Ala
      180            185            190
Phe Arg Gly Ala Thr Gly Pro Lys Thr Leu Pro Cys Arg Ala Met Ala
      195            200            205

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<210> 2764

<211> 173

<212> PRT

<213> Homo sapiens

<400> 2764

Met Thr Leu Cys His Arg Asp Ser Phe Gly Ser Trp His Leu Phe His
 1 5 10 15
 Leu Leu Leu Leu Glu Tyr Met Ile His Ile Leu Gln Ser Cys Leu Glu
 20 25 30
 Glu Glu Glu Glu Glu Glu Asp Met Gly Thr Val Lys Glu Met Leu Pro
 35 40 45
 Asp Asp Pro Thr Leu Gly Gln Pro Asp Gln Ala Leu Phe His Ser Leu
 50 55 60
 Asn Ser Ser Leu Ser Gln Ala Cys Ala Ser Pro Ser Met Glu Pro Leu
 65 70 75 80
 Gly Val Met Pro Thr His Met Gly Gln Gly Arg Tyr Pro Val Gly Val
 85 90 95
 Ser Asn Met Val Leu Arg Ile Leu Gly Phe Leu Val Asp Thr Ala Met
 100 105 110
 Gly Asn Lys Leu Ile Gln Val Leu Leu Glu Asp Glu Thr Thr Glu Ser
 115 120 125
 Ala Val Lys Leu Ser Leu Pro Met Gly Gln Glu Ala Leu Ile Thr Leu
 130 135 140
 Lys Asp Gly Gln Gln Phe Val Ile Gln Ile Ser Asp Val Pro Gln Asn
 145 150 155 160
 Ser Glu Asp Ile Tyr Phe Arg Glu Asn Asn Ala Asn Val
 165 170

<210> 2765

<211> 322

<212> PRT

<213> Homo sapiens

<400> 2765

Met His Leu Ser Ile His Pro Ser Leu Pro Leu Cys Met His Leu Ser
 1 5 10 15
 Ile His Pro Arg Leu Cys Ala Cys Ile Cys Pro Ser Ile Pro Ala Ser
 20 25 30

Val His Ala Ser Val Arg Pro Ser Ile Pro Ala Ser Val His Ala Ser
 35 40 45
 Val His Ser Ser Leu Pro Leu Cys Met His Leu Ser Ile His Pro Ser
 50 55 60
 Pro Pro Leu Cys Met His Leu Ser Ile His Pro Cys Leu Cys Ala Cys
 65 70 75 80
 Ile Cys Pro Phe Ile Pro Ala Ser Val His Ala Ser Val His Pro Ser
 85 90 95
 Ile Pro Ala Ser Val His Ala Ser Val His Ser Ser Leu Pro Leu Cys
 100 105 110
 Met His Leu Ser Ile His Pro Ser Pro Pro Leu Cys Met His Leu Ser
 115 120 125
 Ile His Pro Cys Leu Cys Val Cys Ile Cys Pro Ser Ile His Pro Arg
 130 135 140
 Leu Cys Ala Cys Ile Arg Pro Ser Ile Pro Ala Ser Val His Ala Ser
 145 150 155 160
 Val Arg Pro Ser Ile Pro Ala Ser Val His Ala Ser Val Arg Pro Phe
 165 170 175
 Ile Pro Ala Ser Val His Ala Ser Val His Ser Ser Ile Pro Asp Ser
 180 185 190
 Val His Ala Ser Val His Pro Ser Ile Leu Ala Ser Met Leu Ala Phe
 195 200 205
 Val Arg Pro Ser Ile Pro Ala Ser Val His Ala Ser Ile Pro Ala Ser
 210 215 220
 Val His Ala Ser Val Ser Leu Ser Ile Pro Asp Pro Phe Phe Val Met
 225 230 235 240
 Val Leu Ser Ala His Asn Ser Leu Ile Leu Arg Arg Ser Leu Asp Pro
 245 250 255
 Phe Pro Pro Leu Thr Pro Cys Cys Ser Leu Pro Ser Leu Pro Gly Gln
 260 265 270
 Val Leu Gln Pro Val Val Ser Thr Gln Ser Ser Leu Pro Pro Leu Leu
 275 280 285
 Ser His Leu Ser Pro Leu His Ser Lys Phe Phe Pro Asn Ala Leu Gly
 290 295 300
 Leu Gln Ala Leu Lys Arg Ser Leu Cys Pro Trp Met Thr Lys His Arg
 305 310 315 320

Pro Met

<210> 2766

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2766

```

Met Ser Ser Leu Lys Val Pro His Thr Arg Pro Val Ser Leu Ser Thr
  1              5              10              15
Gly Ser Cys Val Ile Ile Thr Gly Thr Pro Ile Ile Pro Phe Val Met
      20              25              30
Asp Pro Gln Leu Gln Val Asp Phe His Thr Glu Met Lys Glu Asp Ser
      35              40              45
Asp Ile Ala Phe His Phe Arg Val Tyr Phe Gly His Trp Val Val Met
      50              55              60
Asn Ser Arg Val Asn Gly Ala Trp Gln Tyr Glu Val Thr Cys His Asn
      65              70              75              80
Met Pro Phe Gln Asp Gly Lys Pro Phe Asn Leu Cys Ile Ser Val Leu
      85              90              95
Ala Asp Glu Tyr Gln Pro Phe Arg Ile Ile Ser Tyr Val Leu Gln His
      100             105             110
Leu Phe Cys Ser Ser Ser Leu Lys Thr Phe Glu Phe Pro Ser Leu Pro
      115             120             125
Pro Pro Leu His Leu Trp Ala Thr Pro Lys Arg Asn Trp Ala Ile Ser
      130             135             140
Ser His Ser Glu Trp Glu Leu
      145             150

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<210> 2767

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2767

Met Glu Val Arg Val Pro Leu Glu Glu Ala Gly Cys Ser Gln Ser Ser
 1 5 10 15
 Asn Thr Met Leu Gly Glu Pro Leu Leu Arg Ala Val Arg Gln Gly Cys
 20 25 30
 Leu Ser Leu Gln Lys Phe Leu Leu Pro Phe Val Gln Leu Cys Pro Ala
 35 40 45
 Pro Arg Gly Arg Val Tyr Arg Gly Ser Ser Pro Cys Arg Ala Val Val
 50 55 60
 Gly Ser Ala Gln Phe Glu Leu His Arg His Phe Val Tyr Leu Leu Lys
 65 70 75 80
 Pro Gln Gln Trp Gln Thr Pro Leu Pro Leu Pro Gly Cys Cys Leu Thr
 85 90 95
 Gly Gln Ser Gln Thr Ala Glu Pro Ala Val Ser Lys Ala Pro Trp Ala
 100 105 110
 Trp Asp Leu Leu Ser Gln Ala Gln Asp Ile Ile Ser Trp Cys Ala Ile
 115 120 125
 Cys

<210> 2768

<211> 119

<212> PRT

<213> Homo sapiens

<400> 2768

Met Arg Lys Gly Ser Met Gly Asn Asn Leu Asp Ala Glu Ala Leu Cys
 1 5 10 15
 Trp Glu Gly Leu Asp His Val Asn Met Arg Cys Ile Cys Ser Val Gly
 20 25 30
 Glu Lys His Val Val Ala Ser Gly Trp Gln Glu Gly Arg Arg His Leu
 35 40 45
 Phe Ser Glu Leu Leu Pro Ser Glu Ser Ser Val Leu Leu Thr Met Gly
 50 55 60

Gly Cys Leu Glu Pro Gln Gly Ser Ala Trp Cys Ser Ser Leu Cys Ala
 65 70 75 80
 Glu Gln Ser Leu Pro Ser Pro Arg His Leu Glu Ser Leu Ser Ser Arg
 85 90 95
 Gly Pro His Ile Val Phe Leu Phe Thr Met Phe Leu Ile Leu Ser Val
 100 105 110
 Glu Ser Ser Leu Lys Thr His
 115

<210> 2769

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2769

Met Thr Gln Val Leu Met Val Gln Arg Gly Gln Pro Val Arg Gly Gln
 1 5 10 15
 Arg Gln Ala Arg Thr Glu Met Val Ser Trp Lys Thr Ala Arg Leu His
 20 25 30
 Leu Ser Asn Gly Thr Arg Leu Glu Gly Arg Pro Ala Ala Leu Gly Asn
 35 40 45
 Arg Gly Cys Phe Trp Val Asn Ser Gln Thr Arg Trp Cys Arg Glu Pro
 50 55 60
 Trp Thr Trp Gln Leu Gly Trp Thr Ser His Gly Ser Val Phe Gln Glu
 65 70 75 80
 Thr Ala Ser Gln Cys Leu Ser Gly Gln Phe Ser Lys Arg Thr Ile His
 85 90 95
 Gly Pro Phe Phe His Ser Leu Pro Met His Arg Leu Gly Trp Ala
 100 105 110

<210> 2770

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2770

```

Met Asp Arg Pro Leu His Pro Ala Pro Ala Pro Cys Thr Leu Arg Pro
 1           5           10           15
Arg Ser Gln Ala Gln Gln Arg Pro Glu His Gly Gly Cys Pro Gln Ser
      20           25           30
Thr Ser Ala Phe Leu Arg Thr Ala Cys Glu Gln Gly Gly Gly Ala Phe
      35           40           45
Arg Lys Trp Lys Pro Thr Leu Arg Val Arg Ala Val His Pro Pro Arg
      50           55           60
Ala Ser Ser Leu Ser Leu Phe Arg Ser Thr Arg Ala Gln Ser Val Thr
      65           70           75           80
Asn Asp Thr Gln His Leu Val Pro Arg Glu Ile Gly Gly Glu Glu Gly
      85           90           95
Gly Val Leu Lys Arg Ser Ala Ser Pro Trp Glu Val Asn Ile Leu Ser
      100          105          110
Glu Pro Leu Ala Tyr Arg Gly Gly Tyr Thr His Trp Met Gly Gly His
      115          120          125
Leu Gly Ser Tyr Trp His Val Ser Gln Phe Ala Ser Pro Pro
      130          135          140

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<210> 2771

<211> 409

<212> PRT

<213> Homo sapiens

<400> 2771

```

Met Ser Leu Gly Pro Cys Ser Ala Ser Cys Gly Leu Gly Thr Ala Arg
 1           5           10           15
Arg Ser Val Ala Cys Val Gln Leu Asp Gln Gly Gln Asp Val Glu Val
      20           25           30
Asp Glu Ala Ala Cys Ala Ala Leu Val Arg Pro Glu Ala Ser Val Pro
      35           40           45
Cys Leu Ile Ala Asp Cys Thr Tyr Arg Trp His Val Gly Thr Trp Met
      50           55           60

```

Glu Cys Ser Val Ser Cys Gly Asp Gly Ile Gln Arg Arg Arg Asp Thr
 65 70 75 80
 Cys Leu Gly Pro Gln Ala Gln Ala Pro Val Pro Ala Asp Phe Cys Gln
 85 90 95
 His Leu Pro Lys Pro Val Thr Val Arg Gly Cys Trp Ala Gly Pro Cys
 100 105 110
 Val Gly Gln Gly Thr Pro Ser Leu Val Pro His Glu Glu Ala Ala Ala
 115 120 125
 Pro Gly Arg Thr Thr Ala Thr Pro Ala Gly Ala Ser Leu Glu Trp Ser
 130 135 140
 Gln Ala Arg Gly Leu Leu Phe Ser Pro Ala Pro Gln Pro Arg Arg Leu
 145 150 155 160
 Leu Pro Gly Pro Gln Glu Asn Ser Val Gln Ser Ser Ala Cys Gly Arg
 165 170 175
 Gln His Leu Glu Pro Thr Gly Thr Ile Asp Met Arg Gly Pro Gly Gln
 180 185 190
 Ala Asp Cys Ala Val Ala Ile Gly Arg Pro Leu Gly Glu Val Val Thr
 195 200 205
 Leu Arg Val Leu Glu Ser Ser Leu Asn Cys Ser Ala Gly Asp Met Leu
 210 215 220
 Leu Leu Trp Gly Arg Leu Thr Trp Arg Lys Met Cys Arg Lys Leu Leu
 225 230 235 240
 Asp Met Thr Phe Ser Ser Lys Thr Asn Thr Leu Val Val Arg Gln Arg
 245 250 255
 Cys Gly Arg Pro Gly Gly Gly Val Leu Leu Arg Tyr Gly Ser Gln Leu
 260 265 270
 Ala Pro Glu Thr Phe Tyr Arg Glu Cys Asp Met Gln Leu Phe Gly Pro
 275 280 285
 Trp Gly Glu Ile Val Ser Pro Ser Leu Ser Pro Ala Thr Ser Asn Ala
 290 295 300
 Gly Gly Cys Arg Leu Phe Ile Asn Val Ala Pro His Ala Arg Ile Ala
 305 310 315 320
 Ile His Ala Leu Ala Thr Asn Met Gly Ala Gly Thr Glu Gly Ala Asn
 325 330 335
 Ala Ser Tyr Ile Leu Ile Arg Asp Thr His Ser Leu Arg Thr Thr Ala

340 345 350
 Phe His Gly Gln Gln Val Leu Tyr Trp Glu Ser Glu Ser Ser Gln Ala
 355 360 365
 Glu Met Glu Phe Ser Glu Gly Phe Leu Lys Ala Gln Ala Ser Leu Arg
 370 375 380
 Gly Gln Tyr Trp Thr Leu Gln Ser Trp Val Pro Glu Met Gln Asp Pro
 385 390 395 400
 Gln Ser Trp Lys Gly Lys Glu Gly Thr
 405

<210> 2772

<211> 242

<212> PRT

<213> Homo sapiens

<400> 2772

Met Lys Trp Ile Pro Thr Ser Asn Pro Leu Pro Gln Pro Phe Lys Glu
 1 5 10 15
 Pro Leu Ala Ile Met Arg Val Glu Asn Ser Lys Ala Glu Lys Pro Lys
 20 25 30
 Pro Ala Arg Arg Lys Thr Ala Thr Asp Thr Leu Ile Ala Pro Leu Leu
 35 40 45
 Asp Arg Ser Ala His His Tyr Lys Gly Gly Gly Gly Asp Pro Gly Pro
 50 55 60
 Gly Pro Ala Pro Ala Pro Ala Pro Pro Ala Pro Asp Lys Lys His
 65 70 75 80
 Ala Arg His Phe Ser Leu Asp Val His Pro Tyr Ile Leu Gly Thr Lys
 85 90 95
 Lys Ala Lys Ala Glu Ala Val Pro Ala Ala Leu Pro Ala Ser Arg Ser
 100 105 110
 Gln Glu Gly Gly Phe Leu Ser Gln Ala Glu Asp Cys Gly Leu Gly Leu
 115 120 125
 Ala Pro Ala Pro Ile Lys Asp Ala Pro Leu Pro Glu Lys Glu Ile Pro
 130 135 140
 Tyr Pro Thr Glu Pro Ala Arg Ala Gly Leu Pro Ser Gly Gly Pro Phe

145 150 155 160
 His Val Arg Ser Pro Pro Ala Ala Pro Ala Val Ala Pro Leu Thr Pro
 165 170 175
 Ala Ser Leu Gly Lys Ala Glu Pro Leu Thr Ile Leu Ser Gln Thr Pro
 180 185 190
 His Thr Arg Cys Cys Thr Ser Thr Arg Cys Thr Arg Pro Gly Arg Arg
 195 200 205
 Arg Thr Gly Ala Pro Ala Cys Arg Arg Thr Trp Gly Thr Ser Ser Pro
 210 215 220
 Ser Leu Pro His Ser Arg Ser Ser Ser Pro Pro Ser Thr Ser Arg Glu
 225 230 235 240
 Arg Ser

<210> 2773

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2773

Met Phe Ser Val Val Cys His Phe Val Ser Ser Leu Arg Gly Tyr Phe
 1 5 10 15
 Pro Ala Ser Leu Lys Ser Ser Phe Pro Ala Cys Cys Phe Trp Thr Leu
 20 25 30
 Phe Ser Thr Val Val Thr Ser Cys Arg Leu Cys Gly Pro Ile Leu His
 35 40 45
 Gln Asn Val Thr Ser Ile Asn Ser Ala Ala Met Arg Gln Ile His Gln
 50 55 60
 Trp Pro Ala Asp Ser Arg Gln Gln Ala Pro Met Ser Asp Gly His Leu
 65 70 75 80
 His Ala Ser Arg Gly Pro Pro Pro Pro Cys Gly Val Ser Arg Ala Gly
 85 90 95
 Leu Thr Ile Pro Leu Gly Thr Arg Ala Ser Gly Trp Pro Glu Ser Ser
 100 105 110
 His Thr Leu Cys

115

<210> 2774

<211> 295

<212> PRT

<213> Homo sapiens

<400> 2774

```

Met Thr Ser Gly Asp Pro Pro Ser Leu Ala Ser Gln Ser Ala Arg Ile
  1             5             10             15
Thr Asp Ala Ser His His Ala Arg Pro Leu Phe Leu Phe Leu Arg Gln
          20             25             30
Gly Leu Ser Ser Phe Ala Glu Ala Gly Val Gln Trp His Asn Tyr Gly
      35             40             45
Ser Leu Gln Pro Gln Pro Pro Gly Val Lys Arg Ala Ser His Leu Asn
      50             55             60
Leu Pro Ser Ser Met His His Thr Trp Leu Ile Phe Val Phe Phe Val
      65             70             75             80
Gly Thr Glu Phe Gln Cys Val Ala Gln Ala Gly Val Gly Leu Pro Gly
          85             90             95
Ser Ser Asn Pro Pro Thr Ser Ala Ser Gln Arg Ala Gly Thr Thr Gly
          100             105             110
Met Ser His Ser Thr Gln His Phe Phe Asn Ser Val Thr Pro Gln Leu
          115             120             125
Leu Leu Leu Pro Leu Pro Gly Lys Pro Ala Arg Leu Thr Cys His Pro
          130             135             140
Arg Leu Ser Thr Gln Thr Leu Leu Ala Met Arg Gly Leu Gly Gln Gln
          145             150             155             160
Ser Arg Ala Pro Phe Pro Gly Pro Pro Gln Leu Pro Leu Gly Gln Arg
          165             170             175
Val Trp Gly Leu Ile Phe Asn Pro Leu Pro Ala Pro Glu Ala Leu Glu
          180             185             190
Lys Ser Arg Thr Gln Asp Ser Ser Asp Ser Ala Pro Leu Pro Ala Arg
          195             200             205
Arg Phe Leu Leu Thr Arg Pro Ala Gln Pro Asp Leu Gly Gly Ser Pro

```

210 215 220
 Ala Pro Ser Ser Leu Pro Ser Trp Leu Arg Val Ala Thr Arg Ser Ile
 225 230 235 240
 Trp Cys Phe Arg Tyr Ser Leu Gly Ser Arg Thr Leu Val Gly Leu Ser
 245 250 255
 His Thr Arg Gly Gly Cys Arg Val Ser Gln Leu Arg Leu Ala Ser Thr
 260 265 270
 Trp Asp Thr Phe His Ser Lys Trp Val Gly Thr Arg Thr Thr Lys Leu
 275 280 285
 Met Leu Phe Leu Lys Gly Lys
 290 295

<210> 2775

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2775

Met Thr Val Pro His Pro Val Leu Ser Gly His Gly Glu Gly Thr Leu
 1 5 10 15
 Gly Lys Asp Thr Arg Asp Arg Glu Gly Ala Ala Gly Leu Phe Ala Gly
 20 25 30
 Ser Gly Arg Glu Ala Phe Leu Leu His Val Ala Ala Gly Thr Gln Thr
 35 40 45
 Ala Ala Leu Gln Gly Pro Leu Ala Gly Phe Gly Ser Leu Arg Pro Arg
 50 55 60
 Thr Arg Leu His Thr Ala Val Ala Ser Leu Ser Arg Val Gly Cys Ser
 65 70 75 80
 Thr Glu Gly Ala Asn Thr Ser Arg Gly Leu Cys Gln Val Ile Thr Lys
 85 90 95
 Gln Ile Pro Gly Asp Phe Leu Ser Ser Pro Arg Pro Pro Gly Gln Cys
 100 105 110
 Pro Leu Arg Val Pro
 115

<210> 2776

<211> 171

<212> PRT

<213> Homo sapiens

<400> 2776

```

Met Arg Gly Ser Ala Trp Gly Leu Glu Glu Val Ser Leu Arg Lys Leu
  1             5             10             15
His Leu Ser Thr Arg Leu Arg Ala Leu Asp Met Glu Gly Val Val Arg
      20             25             30
Ala Lys Val His Val Glu Glu Thr Ser Ala Gly Glu Gly Arg Gly Arg
      35             40             45
Gly Ser Gln Asn Lys Glu Ala Val Tyr Ser Glu Ala Phe Gln Arg Ala
      50             55             60
Phe Leu Ile Pro Phe Gln Ala Ser Phe Thr Gly Ala Phe Lys Glu Asp
      65             70             75             80
Ala Leu Asn Tyr Trp Val Ser Ser Gln Gly Leu Leu Tyr Cys Met Leu
      85             90             95
His Leu Tyr Tyr Phe Leu Glu Asn Leu Ser Phe Lys Ala Val Leu His
      100            105            110
Leu Met Trp Gln Pro Leu Arg Asn Ile His Cys Leu Ser Leu Gly Leu
      115            120            125
Gln Lys Lys Lys Gln Gly Pro Ser Ile Cys Leu Ala Pro Ile Leu Leu
      130            135            140
Val Val Pro Ser Glu Leu Asp Ser Asp Val Asp Arg Arg Ala Val Leu
      145            150            155            160
Thr Gln Ala Trp Ala Phe Ser Pro His Thr Ala
      165            170

```

<210> 2777

<211> 198

<212> PRT

<213> Homo sapiens

<400> 2777

Met Ala Leu Ser Pro Asn Gly Glu Ile Leu Arg Ala Arg Glu Ala Tyr
 1 5 10 15
 Tyr Gln Pro Ser Leu Thr Ala Glu Tyr Asp Glu Asp Ser Pro Gly Gly
 20 25 30
 Asp Phe Asp Phe Phe Ser Asn Leu Val Thr Lys Trp Glu Ala Ala Ala
 35 40 45
 Arg Leu Pro Gly Asp Ser Thr Arg Gln Val Val Val Arg Ser Gly Val
 50 55 60
 Val Leu Gly Arg Gly Gly Gly Ala Met Gly His Met Leu Leu Pro Phe
 65 70 75 80
 Arg Leu Gly Leu Gly Val Pro Ile Gly Ser Gly His Gln Phe Phe Pro
 85 90 95
 Trp Ile His Ile Gly Asp Leu Ala Gly Ile Leu Thr His Ala Leu Glu
 100 105 110
 Ala Asn His Val His Gly Val Leu Asn Gly Val Ala Pro Ser Ser Ala
 115 120 125
 Thr Asn Ala Glu Phe Ala Gln Thr Leu Gly Ala Ala Leu Gly Arg Arg
 130 135 140
 Ala Phe Ile Pro Leu Pro Ser Ala Val Val Gln Ala Val Phe Gly Arg
 145 150 155 160
 Gln Arg Ala Ile Met Leu Leu Glu Gly Gln Lys Val Ile Pro Gln Arg
 165 170 175
 Thr Leu Ala Thr Gly Tyr Gln Tyr Ser Phe Pro Glu Leu Gly Ala Ala
 180 185 190
 Leu Lys Glu Ile Val Ala
 195

<210> 2778

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2778

Met Tyr Arg Ala Lys Glu Arg Gln Phe Asp Val Pro Arg His Leu Gly

```

      1             5             10             15
Trp Cys Trp Glu Glu Ser Gly Trp His Met Gly Gly Arg Asn Glu Glu
      20             25             30
Arg Trp Asp Gly Lys Asp Arg Glu Asp Thr Gln Gly Ala Leu Arg Val
      35             40             45
Gly Arg Gly Ala Thr Phe Thr Trp Gly Arg Glu Gly Gly Phe Cys Glu
      50             55             60
Trp Ser Gln Val Lys Gly Gly Cys Phe Met Val Gln Gly Ser Gln Gly
      65             70             75             80
Phe Ser Gly Gly Gly Met Cys Val Cys Arg Arg Ile Gly Asp Glu Asp
      85             90             95
Gly Pro Lys Thr Leu Leu Arg His
      100

```

<210> 2779

<211> 226

<212> PRT

<213> Homo sapiens

<400> 2779

```

Met Ser Ser Pro Thr Ala Ser Ser Thr Thr Pro Arg Cys Gly Thr Ser
      1             5             10             15
Ala Gly Pro Ala Ser Pro Thr Trp Arg Cys Arg Ala Thr Ala Leu Arg
      20             25             30
Leu His His Pro Val Asp Gln Leu Pro His Gln Val Leu Gln Pro Thr
      35             40             45
Thr Gly Gln Arg Gln Pro Gly Thr Gly Leu Pro Trp His Ser Thr Pro
      50             55             60
Ala Gln Leu Ala Leu Ala Gly Leu Arg Gln Ala Gln Pro His Pro Gln
      65             70             75             80
Gln Gln Arg Leu His Gln Pro Gly Leu Arg Gly Val Asp Ala His Gly
      85             90             95
Ser Ala Ala His Val Pro Gln Ala Val Pro Gln Ala Val Arg Ala His
      100             105             110
Pro Pro Gly Gln Leu Leu Ser Trp Ala Ala Ala Val Cys Leu Leu Cys

```

115 120 125
 Gln His His Leu Gln Leu Pro Gly Lys Lys Arg Asn Ser Thr Leu Tyr
 130 135 140
 Ile Thr Met Leu Leu Ile Val Pro Val Ile Val Ala Gly Ala Ile Ile
 145 150 155 160
 Val Leu Leu Leu Tyr Leu Lys Arg Leu Lys Ile Ile Ile Phe Pro Pro
 165 170 175
 Ile Pro Asp Pro Gly Lys Ile Phe Lys Glu Met Phe Gly Asp Gln Asn
 180 185 190
 Asp Asp Thr Leu His Trp Lys Lys Tyr Asp Ile Tyr Glu Lys Gln Thr
 195 200 205
 Lys Glu Glu Thr Asp Ser Val Val Leu Ile Glu Asn Leu Lys Lys Ala
 210 215 220
 Ser Gln
 225

<210> 2780

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2780

Met Gly Ala Leu Asp Gly Ser Leu Val Leu Ala Gln Gly Val Asn Asp
 1 5 10 15
 Asp Thr Asp Ser Met Pro His Pro Leu Ser Cys Pro Ala Ser Leu Thr
 20 25 30
 Lys Thr Glu Trp Pro Phe His Phe Tyr Ser Pro Arg Val Ser Glu Asp
 35 40 45
 Val Gly Cys Gly Arg Gly Arg Arg Gly Arg Arg Lys Thr Arg Asn Gly
 50 55 60
 Gly Arg Glu Leu Cys Ala Arg Asp Thr Gly Ser Glu Thr Gln Gln His
 65 70 75 80
 Ser Ser Lys Arg Pro Pro Ala Pro Arg Pro Val Thr Pro Thr Ala Gly
 85 90 95
 Ala Ile His Lys Thr Thr Gly His Pro Arg Cys Thr Arg Leu Ser Gln

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Glu Pro Phe Cys Gln Arg Pro Gln Ala Gly Cys Pro Pro His Trp Ala | | |
| 115 | 120 | 125 |
| Ala Arg Val Gly Gly Ala Ala Val Ala Leu Val Pro Ser Gly Cys Leu | | |
| 130 | 135 | 140 |
| Ser Asn Arg Cys Gln Pro Thr Asn Cys Ser Pro Ala Gly Pro Arg Asp | | |
| 145 | 150 | 155 |
| Gln Pro Asp Thr Leu Pro Thr Glu Asp Glu Val Leu His Cys Glu Gly | | |
| 165 | 170 | 175 |
| Pro His Cys Pro Ala Val Pro Asp Thr Ala Pro Leu Ser Met Arg Glu | | |
| 180 | 185 | 190 |
| Ala Pro His Leu Ala Pro Arg Ser Pro Ala His Thr Ser Gln Gln Pro | | |
| 195 | 200 | 205 |
| Gly Pro Gly Trp Leu Pro Ser Ser Lys Pro | | |
| 210 | 215 | |

<210> 2781

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2781

| | | |
|---|----|----|
| Met Asn Cys Gly Leu Thr Val Cys Ser Arg Pro Leu Ser Ala Phe His | | |
| 1 | 5 | 10 |
| Ser Val Thr Ala Ile Phe Pro Cys Lys Ile Gly Gly Gly Glu Arg Val | | |
| 20 | 25 | 30 |
| Gly Leu Leu Gly Glu Val Leu Asp Leu Ser Ala Ile Cys Phe Val Pro | | |
| 35 | 40 | 45 |
| Trp Val Ser Pro Glu Ile Arg Ala Phe Gly Trp Val Cys Ser Leu Lys | | |
| 50 | 55 | 60 |
| Val Glu Asn Gly Phe Cys Leu Arg Gly Cys Val Ser Ile Thr Ser Ser | | |
| 65 | 70 | 75 |
| Met Val Cys Cys Tyr Ser Thr Ser Arg Leu Pro Phe Glu His Pro Phe | | |
| 85 | 90 | 95 |
| Arg Lys Glu Arg Lys Val Asn Lys Leu His Phe Thr His Cys Val Ser | | |

100 105 110
 Gly Thr Ser Cys Thr
 115

<210> 2782

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2782

Met Ser Leu Trp Val Pro Ser Gly Leu His Glu Asn Leu Thr Asp Ala
 1 5 10 15
 Thr Thr Glu Gly Thr Gly Phe Arg Arg Ser Trp Gln Tyr Val Ser Ser
 20 25 30
 Ala Glu Gly Thr Gly Phe Arg Arg Ser Trp Gln Tyr Val Ser Ser Ala
 35 40 45
 Asn Leu Arg Gly Glu Thr Asn Ala His Ser Pro Glu Glu Met Arg Thr
 50 55 60
 His Phe Cys Met Pro Pro Ser Pro Thr Pro Leu Pro Leu Ala Gln Pro
 65 70 75 80
 Tyr Val Leu Phe Phe Ala Phe Asp Phe Pro Arg Leu His Leu Phe Leu
 85 90 95
 Leu Phe Phe Phe Phe Ser Pro Thr Glu Ser Arg Phe Val Ala Gln Thr
 100 105 110
 Val Val Gln Trp Cys Asp His Gly Ser Leu Gln Ser Pro Pro Pro Gly
 115 120 125
 Leu Asn Asp Thr Pro Ala Ser Ala Ser
 130 135

<210> 2783

<211> 480

<212> PRT

<213> Homo sapiens

<400> 2783

Met Asp Pro His Thr Glu Glu Leu Pro Gln Tyr Ile His Ile Asn Gln
 1 5 10 15
 Asn Glu Phe Cys Ile Arg Arg His Lys Lys Gln Lys Glu Glu Asp Ile
 20 25 30
 Ala Ile Cys Glu Cys Lys Tyr Asp Ala Asp Asp Pro Asp Asn Ala Cys
 35 40 45
 Gly Asp Ser Cys Leu Asn Val Leu Thr Ser Thr Glu Cys Thr Pro Gly
 50 55 60
 Tyr Cys His Cys Asp Ile Leu Cys Lys Asn Gln Lys Phe Gln Lys Cys
 65 70 75 80
 Glu Tyr Ala Lys Thr Lys Leu Phe Lys Thr Glu Gly Arg Gly Trp Gly
 85 90 95
 Leu Leu Ala Asp Glu Asp Ile Lys Ala Gly Gln Phe Val Ile Glu Tyr
 100 105 110
 Cys Gly Glu Val Ile Ser Trp Lys Glu Ala Lys Arg Arg Ser Gln Ala
 115 120 125
 Tyr Glu Asn Gln Gly Leu Lys Asp Ala Phe Ile Ile Phe Leu Asn Val
 130 135 140
 Ser Glu Ser Ile Asp Ala Thr Arg Lys Gly Ser Leu Ala Arg Phe Ile
 145 150 155 160
 Asn His Ser Cys Gln Pro Asn Cys Glu Thr Arg Lys Trp Asn Val Leu
 165 170 175
 Gly Glu Ile Arg Val Gly Ile Phe Ala Lys His Asp Ile Pro Ile Gly
 180 185 190
 Thr Glu Leu Ala Tyr Asp Tyr Asn Phe Glu Trp Phe Gly Gly Ala Lys
 195 200 205
 Val Arg Cys Leu Cys Gly Ala Leu Lys Cys Ser Gly Phe Leu Gly Ala
 210 215 220
 Lys Ser Arg Gly Phe Gln Glu Asp Thr Tyr Leu Trp Glu Asp Asp Asp
 225 230 235 240
 Gly Arg Tyr Ser Val Glu Lys Ile Pro Val Tyr Asp Ser Ala Glu Asp
 245 250 255
 Glu Pro Val Ser Asn Phe Asn Gly Arg Thr Glu Pro Ser Leu Asp Val
 260 265 270
 Ile Val Lys Ala Glu Gln Leu Ser Glu Ser Thr Ala Phe His Val Gln

<211> 163

<213> Homo sapiens

Met Ile Gly His Lys Thr Ser Leu Asn Lys Phe Lys Lys Ile Glu Ile
1 5 10 15

Ile Ser Ser Thr Leu Ser Asp His Ser Gly Ile Lys Leu Glu Ile Asn
 20 25 30
 Ser Lys Arg Asn Phe Gln Asn His Ala Asn Thr Trp Lys Leu Asn Asn
 35 40 45
 Leu Leu Leu Lys Glu His Trp Val Lys Asn Glu Ile Lys Met Glu Ile
 50 55 60
 Lys Lys Phe Phe Lys Leu Asn Asp Asn Asn Asp Thr Thr Tyr Gln Lys
 65 70 75 80
 Leu Trp Asp Ser Ala Lys Ala Val Leu Arg Gly Lys Phe Ile Ala Leu
 85 90 95
 Asn Ala Tyr Ile Glu Thr Ser Glu Arg Ala Gln Thr Asp Asn Leu Arg
 100 105 110
 Ser His Leu Lys Glu Leu Glu Lys Gln Lys Gln Thr Lys Pro Lys Pro
 115 120 125
 Ser Arg Arg Lys Glu Ile Thr Lys Ile Arg Ala Glu Leu His Glu Ile
 130 135 140
 Glu Thr Ser Lys Gln Thr Lys Asn Thr Lys Asp Lys Trp Asn Lys Lys
 145 150 155 160
 Leu Phe Leu

<210> 2785

<211> 473

<212> PRT

<213> Homo sapiens

<400> 2785

Met Arg Ser Leu Pro Ser Asn Gly Glu Leu Asp Pro Asp Val Leu Glu
 1 5 10 15
 Ser Met Ala Ser Leu Gly Cys Phe Arg Asp Arg Glu Arg Leu His Arg
 20 25 30
 Glu Leu Arg Ser Glu Glu Glu Asn Gln Glu Lys Met Ile Tyr Tyr Leu
 35 40 45
 Leu Leu Asp Arg Lys Glu Arg Tyr Pro Ser Cys Glu Asp Gln Asp Leu
 50 55 60

Pro Pro Arg Asn Asp Val Asp Pro Pro Arg Lys Arg Val Asp Ser Pro
 65 70 75 80
 Met Leu Ser Arg His Gly Lys Arg Arg Pro Glu Arg Lys Ser Met Glu
 85 90 95
 Val Leu Ser Ile Thr Asp Ala Gly Gly Gly Gly Ser Pro Val Pro Thr
 100 105 110
 Arg Arg Ala Leu Glu Met Ala Gln His Ser Gln Arg Ser Arg Ser Val
 115 120 125
 Ser Gly Ala Ser Thr Gly Leu Ser Ser Ser Pro Leu Ser Ser Pro Arg
 130 135 140
 Ser Pro Val Phe Ser Phe Ser Pro Glu Pro Gly Ala Gly Asp Glu Ala
 145 150 155 160
 Arg Gly Gly Gly Ser Pro Thr Ser Lys Thr Gln Thr Leu Pro Ser Arg
 165 170 175
 Gly Pro Arg Gly Gly Gly Ala Gly Glu Gln Pro Pro Pro Pro Ser Ala
 180 185 190
 Arg Ser Thr Pro Leu Pro Gly Pro Pro Gly Ser Pro Arg Ser Ser Gly
 195 200 205
 Gly Thr Pro Leu His Ser Pro Leu His Thr Pro Arg Ala Ser Pro Thr
 210 215 220
 Gly Thr Pro Gly Thr Thr Pro Pro Pro Ser Pro Gly Gly Gly Val Gly
 225 230 235 240
 Gly Ala Ala Trp Arg Ser Arg Leu Asn Ser Ile Arg Ash Ser Phe Leu
 245 250 255
 Gly Ser Pro Arg Phe His Arg Arg Lys Met Gln Val Pro Thr Ala Glu
 260 265 270
 Glu Met Ser Ser Leu Thr Pro Glu Ser Ser Pro Glu Leu Ala Lys Arg
 275 280 285
 Ser Trp Phe Gly Asn Phe Ile Ser Leu Asp Lys Glu Glu Gln Ile Phe
 290 295 300
 Leu Val Leu Lys Asp Lys Pro Leu Ser Ser Ile Lys Ala Asp Ile Val
 305 310 315 320
 His Ala Phe Leu Ser Ile Pro Ser Leu Ser His Ser Val Leu Ser Gln
 325 330 335
 Thr Ser Phe Arg Ala Glu Tyr Lys Ala Ser Gly Gly Pro Ser Val Phe
 340 345 350

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | Pro | Val | Arg | Phe | Gln | Val | Asp | Ile | Ser | Ser | Ser | Glu | Gly | Pro | |
| 355 | | | | | | 360 | | | | | 365 | | | | | |
| Glu | Pro | Ser | Pro | Arg | Arg | Asp | Gly | Ser | Gly | Gly | Gly | Gly | Ile | Tyr | Ser | |
| 370 | | | | | | 375 | | | | | 380 | | | | | |
| Val | Thr | Phe | Thr | Leu | Ile | Ser | Gly | Pro | Ser | Arg | Arg | Phe | Lys | Arg | Val | |
| 385 | | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Glu | Thr | Ile | Gln | Ala | Gln | Leu | Leu | Ser | Thr | His | Asp | Gln | Pro | Ser | |
| 405 | | | | | | 410 | | | | | 415 | | | | | |
| Val | His | Ala | Leu | Ala | Asp | Glu | Lys | Asn | Gly | Ala | Gln | Thr | Arg | Pro | Ala | |
| 420 | | | | | | 425 | | | | | 430 | | | | | |
| Gly | Ala | Pro | Pro | Arg | Ser | Leu | Gln | Pro | Pro | Pro | Gly | Arg | Pro | Asp | Pro | |
| 435 | | | | | | 440 | | | | | 445 | | | | | |
| Glu | Leu | Ser | Ser | Ser | Pro | Arg | Arg | Gly | Pro | Pro | Lys | Asp | Lys | Lys | Leu | |
| 450 | | | | | | 455 | | | | | 460 | | | | | |
| Leu | Ala | Thr | Asn | Gly | Thr | Pro | Leu | Pro | | | | | | | | |
| 465 | | | | | | 470 | | | | | | | | | | |

<210> 2786

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2786

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Gln | Thr | Glu | Ala | Val | Arg | Thr | His | Ser | Ser | Leu | Pro | Pro | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Ala | Leu | His | Ile | Phe | Thr | Val | Cys | Ser | Leu | Gly | Trp | Pro | Leu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Gly | Arg | Pro | Gly | Phe | Ser | Gly | Ala | Gly | Leu | Cys | Gly | Cys | Ser | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Pro | Pro | Ala | Ser | Gly | Pro | Arg | Pro | Ala | Arg | Thr | Trp | Pro | Ala | Pro |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Gln | Gly | Met | Pro | Gly | Gly | Trp | Asp | Lys | Ala | Val | Thr | Ser | Gly | Thr | Phe |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Glu | Met | Glu | Ile | Ile | Arg | Pro | Cys | Asn | Trp | Ile | Met | Ala | Gln | Ala | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |

Ser Ser Arg Ala Glu Trp

100

<210> 2787

<211> 182

<212> PRT

<213> Homo sapiens

<400> 2787

Met Phe Ser Ala Thr Val Ser Val Met Glu Ser Pro Cys Arg Glu Pro

1 5 10 15

Val Ala Ser Leu Val Pro Asn Leu Asn Arg Ser Ser Leu Ala Ser Ala

20 25 30

Ser Leu Pro Val Pro Pro Pro Ala Ser Phe Thr Gly Val Cys Lys Pro

35 40 45

Phe Gly Asp Thr Ser Ala Leu Leu Ser Trp Asp Thr Ser Arg Leu Ile

50 55 60

Gly Thr Ser Leu Ser Arg Thr Leu Phe Ser Phe Gly Glu Ser Phe Ser

65 70 75 80

Leu Ala Phe Ser Phe Ile Cys Trp Leu Ser Leu Cys Leu Ala Ser Leu

85 90 95

Ser Asn Phe Val Asn Ser Ser His Leu Arg Phe Leu Ser Ser Glu Ala

100 105 110

Phe Ser Leu Glu Ser Asn Ile Phe Ser Ser Gly Phe Val Arg Met Val

115 120 125

Ser Gly Leu Phe Leu Ser Cys Ser Leu Val Ala Phe Thr Ser Val Phe

130 135 140

Phe Pro Arg Met Thr Val Leu Ser Phe Asp Arg Val Leu Ser Glu Ala

145 150 155 160

Pro Ala Ala Thr Leu Ser Arg Arg Ser Arg Tyr Asp Ser Arg Ala Ile

165 170 175

Val Glu Ser Ser Pro Met

180

<210> 2788

<211> 489

<212> PRT

<213> Homo sapiens

<400> 2788

```

Met Ala Ala Glu Val Leu Ser Arg Arg Cys Val Leu Met Arg Leu Leu
  1              5              10              15
Asp Phe Ser Tyr Glu Gln Tyr Gln Lys Ala Leu Arg Gln Ser Ala Gly
      20              25              30
Ala Val Val Ile Ile Leu Pro Arg Ala Met Ala Ala Val Pro Gln Asp
      35              40              45
Val Val Arg Gln Phe Met Glu Ile Glu Pro Glu Met Leu Ala Met Glu
      50              55              60
Thr Ala Val Pro Val Tyr Phe Ala Val Glu Asp Glu Ala Leu Leu Ser
      65              70              75              80
Ile Tyr Lys Gln Thr Gln Ala Ala Ser Ala Ser Gln Gly Ser Ala Ser
      85              90              95
Ala Ala Glu Val Leu Leu Arg Thr Ala Thr Ala Asn Gly Phe Gln Met
      100             105             110
Val Thr Ser Gly Val Gln Ser Lys Ala Val Ser Asp Trp Leu Ile Ala
      115             120             125
Ser Val Glu Gly Arg Leu Thr Gly Leu Gly Gly Glu Asp Leu Pro Thr
      130             135             140
Ile Val Ile Val Ala His Tyr Asp Ala Phe Gly Val Ala Pro Trp Leu
      145             150             155             160
Ser Leu Gly Ala Asp Ser Asn Gly Ser Gly Val Ser Val Leu Leu Glu
      165             170             175
Leu Ala Arg Leu Phe Ser Arg Leu Tyr Thr Tyr Lys Arg Thr His Ala
      180             185             190
Ala Tyr Asn Leu Leu Phe Phe Ala Ser Gly Gly Gly Lys Phe Asn Tyr
      195             200             205
Gln Gly Thr Lys Arg Trp Leu Glu Asp Asn Leu Asp His Thr Asp Ser
      210             215             220
Ser Leu Leu Gln Asp Asn Val Ala Phe Val Leu Cys Leu Asp Thr Val
      225             230             235             240

```

Gly Arg Gly Ser Ser Leu His Leu His Val Ser Lys Pro Pro Arg Glu
 245 250 255
 Gly Thr Leu Gln His Ala Phe Leu Arg Glu Leu Glu Thr Val Ala Ala
 260 265 270
 His Gln Phe Pro Glu Val Arg Phe Ser Met Val His Lys Arg Ile Asn
 275 280 285
 Leu Ala Glu Asp Val Leu Ala Trp Glu His Glu Arg Phe Ala Ile Arg
 290 295 300
 Arg Leu Pro Ala Phe Thr Leu Ser His Leu Glu Ser His Arg Asp Gly
 305 310 315 320
 Gln Arg Ser Ser Ile Met Asp Val Arg Ser Arg Val Asp Ser Lys Thr
 325 330 335
 Leu Thr Arg Asn Thr Arg Ile Ile Ala Glu Ala Leu Thr Arg Val Ile
 340 345 350
 Tyr Asn Leu Thr Glu Lys Gly Thr Pro Pro Asp Met Pro Val Phe Thr
 355 360 365
 Glu Gln Met Gln Ile Gln Gln Glu Gln Leu Asp Ser Val Met Asp Trp
 370 375 380
 Leu Thr Asn Gln Pro Arg Ala Ala Gln Leu Val Asp Lys Asp Ser Thr
 385 390 395 400
 Phe Leu Ser Thr Leu Glu His His Leu Ser Arg Tyr Leu Lys Asp Val
 405 410 415
 Lys Gln His His Val Lys Ala Asp Lys Arg Asp Pro Glu Phe Val Phe
 420 425 430
 Tyr Asp Gln Leu Lys Gln Val Met Asn Ala Tyr Arg Val Lys Pro Ala
 435 440 445
 Val Phe Asp Leu Leu Leu Ala Val Gly Ile Ala Ala Tyr Leu Gly Met
 450 455 460
 Ala Tyr Val Ala Val Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln
 465 470 475 480
 Arg Leu Leu Val Lys Ala Lys Thr Gln
 485

<210> 2789

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2789

Met Ser Tyr Leu Leu Val Ser Leu Val Trp Ser Glu Arg Pro Ser Leu
 1 5 10 15
 Ala His Leu Pro Arg Ala Leu Gly Ser Trp Cys Ala Gly Cys Gln Pro
 20 25 30
 Gly Ser Pro Ala Leu Leu Gly Asp Ala Pro Gly Leu Arg Gly Pro Gly
 35 40 45
 Trp Leu Trp Ser Arg Asp Ser Trp Gly Arg Gly Pro Ala Ser Asp Cys
 50 55 60
 Pro Gly Pro Gln Pro Pro Pro Leu Gln Gly Ile Gly Val Met Cys Ser
 65 70 75 80
 Ile Ile Gly Trp Gly Val Cys Val Cys Val Cys Val Cys Val Tyr Val
 85 90 95
 Cys Met Arg Leu Ala His Gly Lys Ala Gln Ala Asn Pro Ala Pro Arg
 100 105 110
 Arg Trp Ala Ala Thr Leu Pro Pro Lys His Gly Asp Val Ala Ala Ala
 115 120 125
 Leu Gly Pro Pro Val Gly Pro Met Gly Glu Glu Leu Pro Phe Ala Gly
 130 135 140
 Val Gly Ser Leu Pro
 145

<210> 2790

<211> 483

<212> PRT

<213> Homo sapiens

<400> 2790

Met Asp Arg Phe Pro Ile Leu Phe Leu Leu Ala Thr Leu Ile Thr Leu
 1 5 10 15
 Ala Ser Gly Ala Arg His Asp Ile Leu Arg Leu Pro Ser Glu Ala Ser
 20 25 30

Thr Phe Phe Lys Ala Pro Gly Gly Asp Gln Asn Asp Glu Gly Thr Arg
 35 40 45
 Trp Ala Val Leu Ile Ala Gly Ser Asn Gly Tyr Trp Asn Tyr Arg His
 50 55 60
 Gln Ser Asp Val Cys His Ala Tyr Gln Leu Leu Arg Lys Gly Gly Leu
 65 70 75 80
 Lys Glu Glu Asn Ile Val Val Phe Met Tyr Asp Asp Ile Ala Phe Asn
 85 90 95
 Glu Glu Asn Pro Arg Pro Gly Val Ile Ile Asn Ser Pro His Gly Asn
 100 105 110
 Asp Val Tyr Lys Gly Val Pro Lys Asp Tyr Ile Gly Glu Asp Val Thr
 115 120 125
 Val Gly Asn Phe Phe Ala Ala Ile Leu Gly Asn Lys Ser Ala Leu Thr
 130 135 140
 Gly Gly Ser Gly Lys Val Val Asp Ser Gly Pro Asn Asp His Ile Phe
 145 150 155 160
 Ile Tyr Tyr Ser Asp His Gly Gly Pro Gly Val Leu Gly Met Pro Thr
 165 170 175
 Asn Pro Tyr Val Tyr Ala Ser Asp Leu Ile Glu Val Leu Lys Lys Lys
 180 185 190
 His Ala Ser Gly Ser Tyr Lys Ser Leu Val Phe Tyr Leu Glu Ala Cys
 195 200 205
 Glu Ser Gly Ser Ile Phe Glu Gly Leu Leu Pro Glu Gly Leu Asn Ile
 210 215 220
 Tyr Ala Thr Thr Ala Ser Asn Ala Glu Glu Ser Ser Trp Gly Thr Tyr
 225 230 235 240
 Cys Pro Gly Glu Tyr Pro Ser Pro Pro Ser Glu Tyr Glu Thr Cys Leu
 245 250 255
 Gly Asp Leu Tyr Ser Val Ala Trp Met Glu Asp Ser Asp Ile His Asn
 260 265 270
 Leu Gln Thr Glu Thr Leu His Gln Gln Tyr Glu Leu Val Lys Gln Arg
 275 280 285
 Thr Met Asn Gly Asn Ser Ile Tyr Gly Ser His Val Met Gln Tyr Gly
 290 295 300
 Asp Ile Gly Leu Ser Glu Asn Asn Leu Val Leu Tyr Leu Gly Thr Asn
 305 310 315 320

<211> 108

<213> Homo sapiens

Met Ala Glu Asn Lys Tyr Ile Cys His Glu Leu Gly Leu Tyr Gly Ile
1 5 10 15
Ile Glu Cys Ser Tyr Trp Ser Tyr Val Ile Trp Ala Thr Trp Lys Lys
20 25 30
Asp Glu Lys Asp Pro Val Cys Leu Gln Lys Gly Lys Ser Asn Ser Ser
35 40 45

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
| Cys | Thr | Ser | Gly | Asn | Cys | Asn | Pro | Leu | Glu | Leu | Ile | Ile | Thr | Asn | Pro | | |
| 50 | | | | | 55 | | | | | 60 | | | | | | | |
| Gln | Asp | Pro | His | Trp | Lys | Thr | Gly | Glu | Asn | Val | Asn | Leu | Gly | Ile | Asp | | |
| 65 | | | | | 70 | | | | | 75 | | | | | | 80 | |
| Gly | Thr | Gly | Leu | Asp | Pro | Arg | Val | Asn | Leu | Leu | Ile | Gln | Gly | Glu | Ile | | |
| 85 | | | | | 90 | | | | | 95 | | | | | | | |
| His | Lys | Arg | Ser | Pro | Lys | Pro | Val | Phe | Gln | Thr | Phe | | | | | | |
| 100 | | | | | 105 | | | | | | | | | | | | |

<210> 2792

<211> 319

<212> PRT

<213> Homo sapiens

<400> 2792

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Ile | Asp | Ile | His | Ser | His | Ile | Leu | Pro | Lys | Glu | Trp | Pro | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Lys | Lys | Arg | Phe | Gly | Tyr | Gly | Gly | Trp | Val | Gln | Leu | Gln | His | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Lys | Gly | Glu | Ala | Lys | Leu | Leu | Lys | Asp | Gly | Lys | Val | Phe | Arg | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Arg | Glu | Asn | Cys | Trp | Asp | Pro | Glu | Val | Arg | Ile | Arg | Glu | Met | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Lys | Gly | Val | Thr | Val | Gln | Ala | Leu | Ser | Thr | Val | Pro | Val | Met | Phe |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Tyr | Trp | Ala | Lys | Pro | Glu | Asp | Thr | Leu | Asn | Leu | Cys | Gln | Leu | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Asn | Asp | Leu | Ala | Ser | Thr | Val | Val | Ser | Tyr | Pro | Arg | Arg | Phe | Val |
| | | 100 | | | | | | 105 | | | | 110 | | | |
| Gly | Leu | Gly | Thr | Leu | Pro | Met | Gln | Ala | Pro | Glu | Leu | Ala | Val | Lys | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Glu | Arg | Cys | Val | Lys | Glu | Leu | Gly | Phe | Pro | Gly | Val | Gln | Ile | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | His | Val | Asn | Glu | Trp | Asp | Leu | Asn | Ala | Gln | Glu | Leu | Phe | Pro | Val |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |

Tyr Ala Ala Ala Glu Arg Leu Lys Cys Ser Leu Phe Val His Pro Trp
 165 170 175
 Asp Met Gln Met Asp Gly Arg Met Ala Lys Tyr Trp Leu Pro Trp Leu
 180 185 190
 Val Gly Met Pro Ala Glu Thr Thr Ile Ala Ile Cys Ser Met Ile Met
 195 200 205
 Gly Gly Val Phe Glu Lys Phe Pro Lys Leu Lys Val Cys Phe Ala His
 210 215 220
 Gly Gly Gly Ala Phe Pro Phe Thr Val Gly Arg Ile Ser His Gly Phe
 225 230 235 240
 Ser Met Arg Pro Asp Leu Cys Ala Gln Asp Asn Pro Met Asn Pro Lys
 245 250 255
 Lys Tyr Leu Gly Ser Phe Tyr Thr Asp Ala Leu Val His Asp Pro Leu
 260 265 270
 Ser Leu Lys Leu Leu Thr Asp Val Ile Gly Lys Val Ser Pro Val Cys
 275 280 285
 His Leu Asp Gly Leu Trp Gly Ala Glu Cys Cys Ile Ser Asn Pro Phe
 290 295 300
 Ser Leu Leu Trp Leu Leu Ser Lys Lys Gly Met Glu Glu Arg Tyr
 305 310 315

<210> 2793

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2793

Met Val Ser Glu Glu Leu Thr Gly Lys Arg Arg Asp Pro Ile Leu Val
 1 5 10 15
 Leu Val Leu Gly Thr Tyr Thr Leu Trp Val Leu Arg Lys Gly Trp Ser
 20 25 30
 Tyr Asn Asp Ser Lys Leu Phe Ser His Trp Ser Tyr Asn Asn Ser Lys
 35 40 45
 Leu Phe Ser Gln Arg Gln Lys His Asp Phe Lys Met Thr Ser Leu Val
 50 55 60

Arg Phe Ser Gly Val Trp Lys Asp Leu Ile Ile Leu Pro Leu Leu Lys
 65 70 75 80
 Pro Glu Thr Tyr Asn Leu Lys Pro Glu Ile Tyr His Lys Glu Leu Gly
 85 90 95
 Lys Leu Cys Gln Ile Pro
 100

<210> 2794

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2794

Met Thr Glu Leu Cys Asn Gly Arg Arg Ala Met Cys Ser Gly Asp Gln
 1 5 10 15
 Phe Thr Val Leu Cys Arg Asp Arg Lys Lys Pro Phe Ile Arg Ala Ala
 20 25 30
 Gly Trp Glu Pro Gly Arg Arg Lys Asp His Asp Pro Leu Pro Gly Thr
 35 40 45
 Trp Pro Phe Cys Thr Pro Gln Ser Pro Ser Arg Cys His Asn Glu Lys
 50 55 60
 Ala His Ile Leu Gly Thr Ala Leu Glu Ala Phe His His Trp Leu His
 65 70 75 80
 Ser Pro Leu Gln Thr His Cys Leu Ala Pro Thr Leu Phe Arg Pro Pro
 85 90 95
 His Ser Met Leu Ser Thr Ala Ser Thr Pro Ala Thr
 100 105

<210> 2795

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2795

Met Gly Leu Ala Thr Phe His Ala Leu Cys Val Leu Leu Thr Cys Leu
 1 5 10 15
 Ser Ser Arg Ser Tyr Arg Leu Gln Ile Gly His Phe Leu Cys Leu Val
 20 25 30
 Ile Leu Val Tyr Cys Ala Glu Tyr Ile Asn Glu Ala Ala Ala Met Asn
 35 40 45
 Trp Arg Leu Phe Ser Lys Tyr Gln Tyr Phe Asp Ser Arg Gly Met Phe
 50 55 60
 Ile Ser Ile Val Phe Ser Ala Pro Leu Leu Val Asn Ala Met Ile Ile
 65 70 75 80
 Val Val Met Trp Val Trp Lys Thr Leu Asn Val Met Thr Asp Leu Lys
 85 90 95
 Asn Ala Gln Glu Arg Arg Lys Glu Lys Lys Arg Arg Arg Lys Glu Asp
 100 105 110

<210> 2796

<211> 226

<212> PRT

<213> Homo sapiens

<400> 2796

Met Gln Ser Ser Leu Lys Leu Val Asp Cys Ile Ile Glu Val His Asp
 1 5 10 15
 Ala Arg Ile Pro Leu Ser Gly Arg Asn Pro Leu Phe Gln Glu Thr Leu
 20 25 30
 Gly Leu Lys Pro His Leu Leu Val Leu Asn Lys Met Asp Leu Ala Asp
 35 40 45
 Leu Thr Glu Gln Gln Lys Ile Met Gln His Leu Glu Gly Glu Gly Leu
 50 55 60
 Lys Asn Val Ile Phe Thr Asn Cys Val Lys Asp Glu Asn Val Lys Gln
 65 70 75 80
 Ile Ile Pro Met Val Thr Glu Leu Ile Gly Arg Ser His Arg Tyr His
 85 90 95
 Arg Lys Glu Asn Leu Glu Tyr Cys Ile Met Val Ile Gly Val Pro Asn
 100 105 110

Val Gly Lys Ser Ser Leu Ile Asn Ser Leu Arg Arg Gln His Leu Arg
 115 120 125
 Lys Gly Lys Ala Thr Arg Val Gly Gly Glu Pro Gly Ile Thr Arg Ala
 130 135 140
 Val Met Ser Lys Ile Gln Val Glu Ser Ser Gly Ala Arg Pro Ser Thr
 145 150 155 160
 Leu Ser Arg Ala Leu Gln Ala Ser Gly Thr Cys Arg Pro Leu Cys Gly
 165 170 175
 Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu Ser Val Pro Ala
 180 185 190
 Glu His Pro Arg Gly Arg His Cys Pro Cys Pro Tyr Ser Thr Val Val
 195 200 205
 Ile Val Phe Ala Pro Asn Leu Trp Gly Arg His Ala Val Phe Pro Ile
 210 215 220
 Ser Arg
 225

<210> 2797

<211> 346

<212> PRT

<213> Homo sapiens

<400> 2797

Met Cys Ser Ser Gln Lys Pro Ala Ser Gln Arg Glu Asp Ser Leu Thr
 1 5 10 15
 Cys Val Ala Ala Thr Thr Phe Gln Lys Val Leu Asp Glu Cys Gln Asn
 20 25 30
 Gln Arg Ala Cys His Leu Leu Val Asn Ser Arg Val Phe Gly Pro Asp
 35 40 45
 Leu Cys Pro Gly Ser Ser Lys Tyr Leu Leu Val Ser Phe Lys Cys Gln
 50 55 60
 Pro Asn Glu Leu Lys Asn Lys Thr Val Cys Glu Asp Gln Glu Leu Lys
 65 70 75 80
 Leu His Cys His Glu Ser Lys Phe Leu Asn Ile Tyr Ser Ala Thr Tyr
 85 90 95

Gly Arg Arg Thr Gln Glu Arg Asp Ile Cys Ser Ser Lys Ala Glu Arg
 100 105 110
 Leu Pro Pro Phe Asp Cys Leu Ser Tyr Ser Ala Leu Gln Val Leu Ser
 115 120 125
 Arg Arg Cys Tyr Gly Lys Gln Arg Cys Lys Ile Ile Val Asn Asn His
 130 135 140
 His Phe Gly Ser Pro Cys Leu Pro Gly Val Lys Lys Tyr Leu Thr Val
 145 150 155 160
 Thr Tyr Ala Cys Val Pro Lys Asn Ile Leu Thr Ala Ile Asp Pro Ala
 165 170 175
 Ile Ala Asn Leu Lys Pro Ser Leu Lys Gln Lys Asp Gly Glu Tyr Gly
 180 185 190
 Ile Asn Phe Asp Pro Ser Gly Ser Lys Val Leu Arg Lys Asp Gly Ile
 195 200 205
 Leu Val Ser Asn Ser Leu Ala Ala Phe Ala Tyr Ile Arg Ala His Pro
 210 215 220
 Glu Arg Ala Ala Leu Leu Phe Val Ser Ser Val Cys Ile Gly Leu Ala
 225 230 235 240
 Leu Thr Leu Cys Ala Leu Val Ile Arg Glu Ser Cys Ala Lys Asp Phe
 245 250 255
 Arg Asp Leu Gln Leu Gly Arg Glu Gln Leu Val Pro Gly Ser Asp Lys
 260 265 270
 Val Glu Glu Asp Ser Glu Asp Glu Glu Glu Glu Glu Asp Pro Ser Glu
 275 280 285
 Ser Asp Phe Pro Gly Glu Leu Ser Gly Phe Cys Arg Thr Ser Tyr Pro
 290 295 300
 Ile Tyr Ser Ser Ile Glu Ala Ala Glu Leu Ala Glu Arg Ile Glu Arg
 305 310 315 320
 Arg Glu Gln Ile Ile Gln Glu Ile Trp Met Asn Ser Gly Leu Asp Thr
 325 330 335
 Ser Leu Pro Arg Asn Met Gly Gln Phe Tyr
 340 345

<210> 2798

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2798

```

Met Met Glu Lys Ile Pro Ile Leu Arg Ser Leu Arg Ala Arg Glu Gln
  1             5             10             15
Gln Ala Gly Lys Asp Val Thr Leu Gln Gly Glu His Gln His Leu Pro
      20             25             30
Glu Pro Gly Cys Gln Gln Thr Val Pro Leu Ser Val Gly Arg Arg Pro
      35             40             45
Pro Asp Thr Pro Gly Pro Glu Thr Asn Ser Met Glu Ala Ala Pro Gly
      50             55             60
Ser Pro Pro Gly Glu Gly Ala Pro Leu Ala Ala Asp Val Tyr Val Gly
      65             70             75             80
Asn Leu Pro Gly Asp Ala Arg Val Ser Asp Leu Lys Arg Ala Leu Arg
      85             90             95
Glu Leu Gly Ser Val Pro Leu Arg Leu Thr Trp Gln Gly Pro Arg Arg
      100            105            110
Arg Ala Phe Leu His Tyr Pro Asp Ser Ala Ala Ala Gln Gln Ala Val
      115            120            125
Ser Cys Leu Gln Gly Leu Arg Leu Gly Thr Asp Thr Leu Arg Val Ala
      130            135            140
Leu Ala Arg Gln Gln Arg Asp Lys
145             150

```

<210> 2799

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2799

```

Met Gly His Ser Arg Val Thr Leu Asn Leu Gln Asp Arg Arg Arg Pro
  1             5             10             15
Ser Ser Gly Leu Leu Ser His Lys Gly Pro Pro Phe Lys Ala Glu Glu
      20             25             30

```

Pro Pro Arg Ser Lys Glu Gly Ala Phe Gly Gly Ser Ile Ser Cys Leu
 35 40 45
 Ser Gln Ile Leu Ala Pro Pro Gln Gly Cys Ser Gln Gly Cys Val Gln
 50 55 60
 Glu Ala Lys Asp Pro Arg Pro Ser Ala Gln Leu Leu Pro Thr Arg Thr
 65 70 75 80
 Thr Cys Leu Ser Arg Gly Ser His Leu Leu His Arg Phe Arg Asn Arg
 85 90 95
 Leu His Val His Gly Ala Gly Pro Arg
 100 105

<210> 2800

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2800

Met Gly Thr Arg Arg Ser Lys Ala Glu Glu Gly Gly Gly Asp Met Arg
 1 5 10 15
 Pro Leu Gln Ser Leu Ser Gly Ile Arg Asp Leu Arg Ala Cys Ser Pro
 20 25 30
 Gly Tyr Ser Thr Leu Ser Ala Glu Asp Asn Val Ser Leu Gly Gln Pro
 35 40 45
 Pro Leu Gly Leu Gly Asn Thr Thr Leu Arg Pro Gln Cys Pro Leu Phe
 50 55 60
 Leu Ser Pro Ser Trp Val Gly Gly Gly Leu Phe Lys Asp Ile Pro Thr
 65 70 75 80
 Gly Phe Gly Ala Lys Pro Phe Leu Gln Arg Glu Lys Arg Val Ser Arg
 85 90 95
 Arg Ser Val Arg Arg
 100

<210> 2801

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2801

```

Met Arg Val Ala Ala Leu Ile Ser Gly Gly Lys Asp Ser Cys Tyr Asn
  1             5             10             15
Met Met Gln Cys Ile Ala Ala Gly His Gln Ile Val Ala Leu Ala Asn
             20             25             30
Leu Arg Pro Ala Glu Asn Gln Val Gly Ser Asp Glu Leu Asp Ser Tyr
             35             40             45
Met Tyr Gln Thr Val Gly His His Ala Ile Asp Leu Tyr Ala Glu Ala
             50             55             60
Met Ala Leu Pro Leu Tyr Arg Arg Thr Ile Arg Gly Arg Ser Leu Asp
             65             70             75             80
Thr Arg Gln Val Tyr Thr Lys Cys Glu Gly Asp Glu Val Glu Asp Leu
             85             90             95
Tyr Glu Leu Leu Lys Leu Val Lys Gly Ile Thr Arg Met Thr Leu Leu
             100            105            110
Ala Glu Tyr Asp Ala Leu Asn Leu Gln Asp Phe His Met His Leu Lys
             115            120            125
Val Gly Ser Gln Ala Ile Val Tyr Arg Thr Pro Asn Glu Leu Cys Thr
             130            135            140
His Ser Lys Phe Asp Lys His Thr Phe Pro Pro Phe Ile Ser Glu Ile
             145            150            155            160
Ala Lys Cys Glu Val
             165

```

<210> 2802

<211> 188

<212> PRT

<213> Homo sapiens

<400> 2802

```

Met Arg Thr Ser Ser Trp His Leu Ser Pro His Pro Met Cys His Gly
  1             5             10             15

```

Gly Arg Phe Cys Arg Pro Pro Pro Pro Gly Ala Pro Arg Ala Val Pro
 20 25 30
 Gly Pro Val Ala Ser Lys Gly Gly Cys Ser Trp Ala Leu Leu Ala Trp
 35 40 45
 Thr Ala Ala Leu Ala Ala Leu Gly Glu Gly Pro Leu Val Gln Pro Ala
 50 55 60
 Phe Leu Leu Leu Gly Phe Arg Val Thr Asp Ala Pro Ser Cys Gly Val
 65 70 75 80
 Val Ser His Ile Cys Phe Ala Val Lys Lys Trp Gly Thr Pro Ser Pro
 85 90 95
 Gly Leu Gln Ser Pro Ala Leu Pro Leu Ser Gly Asp Gly Phe Gln Gln
 100 105 110
 Leu Leu Ala Leu Gly Ala Lys Leu Leu Phe Gln Glu Ala Phe Gly Glu
 115 120 125
 Leu Gly Ser Glu Leu Trp Gly Gly Thr Ala Leu Leu Cys Arg Leu Pro
 130 135 140
 Pro Ser Ser Pro Pro Gly Ser Leu Asp Pro Thr Leu Ala Pro Leu Leu
 145 150 155 160
 Thr Gly Thr Gly Gly Ser Gly Val Arg Gly Leu Leu Pro Leu His Pro
 165 170 175
 Asp Phe Leu Val Cys Met Gly Ser Ser Pro Pro Leu
 180 185

<210> 2803

<211> 176

<212> PRT

<213> Homo sapiens

<400> 2803

Met Gly Arg Val Gly Thr Asp Ala Gly Ile Ala His Lys Met Leu Ala
 1 5 10 15
 Gln Gly Thr Leu His Gly Arg Ser Leu Gln Glu Ser Lys Val Thr Thr
 20 25 30
 Phe Arg Asp Ser Leu His Ser Glu Ala Arg Arg Ala Trp Pro Thr Lys
 35 40 45

Arg Gly Trp Glu Asp Val Ala Cys Trp Ser Gly Gln Pro Ser Asp Gln
 50 55 60
 Gly Gly Arg Val Arg Leu Gly Gly Trp Cys Pro Leu Val Arg Ala Ala
 65 70 75 80
 Glu Arg Gly Trp Glu Asp Gly Ala Cys Trp Ser Gly Gln Pro Ser Gly
 85 90 95
 Gln Gly Gly Gln Ala Arg Gln Gly Gly Arg Tyr Pro Pro Val Arg Ala
 100 105 110
 Ala Glu Gln Ser Trp Lys Asp Gly Ala Cys Trp Ser Gly Arg Leu Asn
 115 120 125
 Glu Ala Gly Arg Met Val Ser Ala Gly Gln Gly Ser Ser Gly Gly Ala
 130 135 140
 Ala Gln Glu Val Leu Ser Arg Gln Ser Leu Gly Leu Val Trp Val Cys
 145 150 155 160
 His Ala Pro Glu Lys Phe Leu Gly Cys Gly Phe Asn Val Leu Leu Gln
 165 170 175

<210> 2804

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2804

Met Val Ala Trp Arg Ser Ala Phe Leu Val Cys Leu Ala Phe Ser Leu
 1 5 10 15
 Ala Thr Leu Val Gln Arg Gly Ser Gly Asp Phe Asp Asp Phe Asn Leu
 20 25 30
 Glu Asp Ala Val Lys Glu Thr Ser Ser Val Lys Gln Pro Trp Asp His
 35 40 45
 Thr Thr Thr Thr Thr Thr Asn Arg Pro Gly Thr Thr Arg Ala Pro Ala
 50 55 60
 Lys Pro Pro Gly Pro Thr Glu Gly Ser Gly Leu Asp Leu Ala Asp Ala
 65 70 75 80
 Leu Asp Asp Gln Asp Asp Gly Arg Arg Lys Pro Gly Ile Gly Gly Arg
 85 90 95

Glu Arg Trp Asn His Val Thr Thr Thr Thr Lys Arg Pro Val Thr Thr
 100 105 110
 Arg Ala Pro Ala Asn Thr Leu Gly Asn Asp Phe Asp Leu Ala Asp Ala
 115 120 125
 Leu Asp Asp Gln Asn Asp Arg Asp Asp Gly Arg Arg Lys Pro Ile Ala
 130 135 140
 Gly Gly Gly Gly Phe Ser Asp Lys Asp Leu Glu Asp Ile Val Gly Gly
 145 150 155 160
 Gly Glu Tyr Lys Pro Asp Lys Gly Lys Gly Asp Gly Arg Tyr Gly Ser
 165 170 175
 Asn Asp Asp Pro Gly Ser Gly Met Val Ala Glu Pro Gly Thr Ile Ala
 180 185 190
 Gly Val Ala Ser Ala Leu Ala Met Ala Leu Ile Gly Ala Val Ser Ser
 195 200 205
 Tyr Ile Ser Tyr Gln Gln Lys Lys Phe Cys Phe Ser Ile Gln His Ala
 210 215 220
 Ala Ala Gly Gln Glu Gly Leu Asn Ala Asp Tyr Val Lys Gly Glu Asn
 225 230 235 240
 Leu Glu Ala Val Val Cys Glu Glu Pro Gln Val Lys Tyr Ser Thr Leu
 245 250 255
 His Thr Gln Ser Ala Glu Pro Pro Pro Pro Pro Glu Pro Ala Arg Ile
 260 265 270

<210> 2805

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2805

Met Pro Arg Cys Ala Lys Ala Lys Ser Gln Pro His Phe Pro Val Leu
 1 5 10 15
 Ala Gln Tyr Ile Leu Asn Glu Ser Glu Ala Arg Val Lys Ala Glu Leu
 20 25 30
 Trp Met Arg Glu Asn Ala Glu Tyr Leu Arg Glu Gln Arg Glu Lys Glu
 35 40 45

Ala Arg Ile Ala Lys Glu Lys Glu Leu Gly Ile Tyr Lys Glu His Lys
 50 55 60
 Pro Lys Lys Ser Cys Lys Arg Arg Glu Pro Ile Gln Ala Ser Thr Ala
 65 70 75 80
 Arg Glu Ala Ile Glu Lys Met Leu Glu Gln Lys Lys Ile Ser Ser Lys
 85 90 95
 Ile Asn Tyr Ser Val Leu Arg Gly Leu Ser Ser Ala Gly Gly Gly Ser
 100 105 110
 Pro His Arg Glu Asp Ala Gln Pro Glu His Ser Ala Ser Ala Arg Lys
 115 120 125
 Leu Ser Arg Arg Arg Thr Pro Ala Ser Arg Ser Gly Ala Asp Pro Val
 130 135 140
 Thr Ser Val Gly Lys Arg Leu Arg Pro Leu Val Ser Thr Gln Pro Ala
 145 150 155 160
 Lys Lys Val Ala Thr Gly Glu Val Cys Cys Pro Thr Gln Pro Gly Gln
 165 170 175
 Gly Asp Leu Gly Arg Gln Pro Thr Ser Ser Trp Ala Gln Met Leu Gly
 180 185 190
 Leu

<210> 2806

<211> 150

<212> PRT

<213> Homo sapiens

<400> 2806

Met Ser Ala Met Gly Ser Val Arg Pro Val Ala Gly Gln His Ser His
 1 5 10 15
 Leu Arg Ala Gly Ala Pro Val Leu Pro Arg Pro Trp Ala Cys Phe Ala
 20 25 30
 Asn Thr Ser Met Ala Gly Ala Ser Pro Gly Asn Trp Leu Gln Leu Ser
 35 40 45
 Val Thr His Gly Arg Gln Cys Arg Ala Gly Arg Arg Gly Asp Gln Arg
 50 55 60

Leu Ser Leu Thr Leu Pro His Gly Val Ser Thr Ala Ala Ala Ser Leu
 65 70 75 80
 Gly Pro Gln Leu Leu Glu Tyr Glu Phe Ser Phe Leu Pro Gly Trp Ser
 85 90 95
 Ser Pro Gln His Trp Asn Pro His Pro His Pro Leu Ser Cys Pro Leu
 100 105 110
 Lys Gly Leu Glu Phe Pro Ala Leu Val Cys Leu Trp Val Ala Pro Gln
 115 120 125
 Ala Pro Val Gly Arg Phe Ser Ser Cys His Thr Phe Gly Thr Ser Ser
 130 135 140
 Ser Val Asn Ser Leu His
 145 150

<210> 2807

<211> 572

<212> PRT

<213> Homo sapiens

<400> 2807

Met Glu Phe Val Leu Ser Val Ala Gly Glu Ile Ile Gly Leu Gly Asn
 1 5 10 15
 Val Trp Arg Phe Pro Tyr Leu Cys Tyr Lys Asn Gly Gly Gly Ala Phe
 20 25 30
 Phe Ile Pro Tyr Phe Ile Phe Phe Phe Val Cys Gly Ile Pro Val Phe
 35 40 45
 Phe Leu Glu Val Ala Leu Gly Gln Tyr Thr Ser Gln Gly Ser Val Thr
 50 55 60
 Ala Trp Arg Lys Ile Cys Pro Leu Phe Gln Gly Ile Gly Leu Ala Ser
 65 70 75 80
 Val Val Ile Glu Ser Tyr Leu Asn Val Tyr Tyr Ile Ile Ile Leu Ala
 85 90 95
 Trp Ala Leu Phe Tyr Leu Phe Ser Ser Phe Thr Ser Glu Leu Pro Trp
 100 105 110
 Thr Thr Cys Asn Asn Phe Trp Asn Thr Glu His Cys Thr Asp Phe Leu
 115 120 125

Asn His Ser Gly Ala Gly Thr Val Thr Pro Phe Glu Asn Phe Thr Ser
 130 135 140
 Pro Val Met Glu Phe Trp Glu Arg Arg Val Leu Gly Ile Thr Ser Gly
 145 150 155 160
 Ile His Asp Leu Gly Ser Leu Arg Trp Glu Leu Ala Leu Cys Leu Leu
 165 170 175
 Leu Ala Trp Val Ile Cys Tyr Phe Cys Ile Trp Lys Gly Val Lys Ser
 180 185 190
 Thr Gly Lys Val Val Tyr Phe Thr Ala Thr Phe Pro Tyr Leu Met Leu
 195 200 205
 Val Ile Leu Leu Ile Arg Gly Val Thr Leu Pro Gly Ala Tyr Gln Gly
 210 215 220
 Ile Ile Tyr Tyr Leu Lys Pro Asp Leu Phe Arg Leu Lys Asp Pro Gln
 225 230 235 240
 Val Trp Met Asp Ala Gly Thr Gln Ile Phe Phe Ser Phe Ala Ile Cys
 245 250 255
 Gln Gly Cys Leu Thr Ala Leu Gly Ser Tyr Asn Lys Tyr His Asn Asn
 260 265 270
 Cys Tyr Lys Asp Cys Ile Ala Leu Cys Phe Leu Asn Ser Ala Thr Ser
 275 280 285
 Phe Val Ala Gly Phe Val Val Phe Ser Ile Leu Gly Phe Met Ser Gln
 290 295 300
 Glu Gln Gly Val Pro Ile Ser Glu Val Ala Glu Ser Gly Pro Gly Leu
 305 310 315 320
 Ala Phe Ile Ala Phe Pro Lys Ala Val Thr Met Met Pro Leu Ser Gln
 325 330 335
 Leu Trp Ser Cys Leu Phe Phe Ile Met Pro Ile Phe Leu Gly Leu Asp
 340 345 350
 Ser Gln Phe Val Cys Val Glu Cys Leu Val Thr Ala Ser Ile Asp Met
 355 360 365
 Phe Pro Arg Gln Leu Arg Lys Ser Gly Arg Arg Glu Leu Leu Ile Leu
 370 375 380
 Thr Ile Ala Val Met Cys Tyr Leu Ile Gly Leu Phe Leu Val Thr Glu
 385 390 395 400
 Gly Gly Met Tyr Ile Phe Gln Leu Phe Asp Tyr Tyr Ala Ser Ser Gly

405 410 415
 Ile Cys Leu Leu Phe Leu Ser Leu Phe Glu Val Val Cys Ile Ser Trp
 420 425 430
 Val Tyr Gly Ala Asp Arg Phe Tyr Asp Asn Ile Glu Asp Met Ile Gly
 435 440 445
 Tyr Arg Pro Trp Pro Leu Val Lys Ile Ser Trp Leu Phe Leu Thr Pro
 450 455 460
 Gly Leu Cys Leu Ala Thr Phe Leu Phe Ser Leu Ser Lys Tyr Thr Pro
 465 470 475 480
 Leu Lys Tyr Asn Asn Val Tyr Val Tyr Pro Pro Trp Gly Tyr Ser Ile
 485 490 495
 Gly Trp Phe Leu Ala Leu Ser Ser Met Val Cys Val Pro Leu Phe Val
 500 505 510
 Val Ile Thr Leu Leu Lys Thr Arg Gly Pro Phe Arg Lys Arg Leu Arg
 515 520 525
 Gln Leu Ile Thr Pro Asp Ser Ser Leu Pro Gln Pro Lys Gln His Pro
 530 535 540
 Cys Leu Asp Gly Ser Ala Gly Arg Asn Phe Gly Pro Ser Pro Thr Arg
 545 550 555 560
 Glu Gly Leu Ile Ala Gly Glu Lys Glu Thr His Leu
 565 570

<210> 2808

<211> 357

<212> PRT

<213> Homo sapiens

<400> 2808

Met Asp Ser Val Glu Lys Thr Thr Asn Arg Ser Glu Gln Lys Ser Arg
 1 5 10 15
 Lys Phe Leu Lys Ser Leu Ile Arg Lys Gln Pro Gln Glu Leu Leu Leu
 20 25 30
 Val Ile Gly Thr Gly Val Ser Ala Ala Val Ala Pro Gly Ile Pro Ala
 35 40 45
 Leu Cys Ser Trp Arg Ser Cys Ile Glu Ala Val Ile Glu Ala Ala Glu

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 50 | 55 | 60 | | | |
| Gln | Leu | Glu | Val | Leu | His |
| Pro | Gly | Asp | Val | Ala | Glu |
| Phe | Arg | Arg | Lys | | |
| 65 | 70 | 75 | 80 | | |
| Val | Thr | Lys | Asp | Arg | Asp |
| Leu | Leu | Val | Val | Ala | His |
| Asp | Leu | Ile | Arg | | |
| 85 | 90 | 95 | | | |
| Lys | Met | Ser | Pro | Arg | Thr |
| Gly | Asp | Ala | Lys | Pro | Ser |
| Phe | Phe | Gln | Asp | | |
| 100 | 105 | 110 | | | |
| Cys | Leu | Met | Glu | Val | Phe |
| Asp | Asp | Leu | Glu | Gln | His |
| Ile | Arg | Ser | Pro | | |
| 115 | 120 | 125 | | | |
| Leu | Val | Leu | Gln | Ser | Ile |
| Leu | Ser | Leu | Met | Asp | Arg |
| Gly | Ala | Met | Val | | |
| 130 | 135 | 140 | | | |
| Leu | Thr | Thr | Asn | Tyr | Asp |
| Asn | Leu | Leu | Glu | Ala | Phe |
| Gly | Arg | Arg | Gln | | |
| 145 | 150 | 155 | 160 | | |
| Asn | Lys | Pro | Met | Glu | Ser |
| Leu | Asp | Leu | Lys | Asp | Lys |
| Thr | Lys | Val | Leu | | |
| 165 | 170 | 175 | | | |
| Glu | Trp | Ala | Arg | Gly | His |
| Met | Lys | Tyr | Gly | Val | Leu |
| His | Ile | His | Gly | | |
| 180 | 185 | 190 | | | |
| Leu | Tyr | Thr | Asp | Pro | Cys |
| Gly | Val | Val | Leu | Asp | Pro |
| Ser | Gly | Tyr | Lys | | |
| 195 | 200 | 205 | | | |
| Asp | Val | Thr | Gln | Asp | Ala |
| Glu | Val | Met | Glu | Val | Leu |
| Gln | Asn | Leu | Tyr | | |
| 210 | 215 | 220 | | | |
| Arg | Thr | Lys | Ser | Phe | Leu |
| Phe | Val | Gly | Cys | Gly | Glu |
| Thr | Leu | His | Asp | | |
| 225 | 230 | 235 | 240 | | |
| Gln | Ile | Phe | Gln | Ala | Leu |
| Phe | Leu | Tyr | Ser | Val | Pro |
| Asn | Lys | Val | Asp | | |
| 245 | 250 | 255 | | | |
| Leu | Glu | His | Tyr | Met | Leu |
| Val | Leu | Lys | Glu | Asn | Glu |
| Asp | His | Phe | Phe | | |
| 260 | 265 | 270 | | | |
| Lys | His | Gln | Ala | Asp | Met |
| Leu | Leu | His | Gly | Ile | Lys |
| Val | Val | Ser | Tyr | | |
| 275 | 280 | 285 | | | |
| Gly | Asp | Cys | Phe | Asp | His |
| Phe | Pro | Gly | Tyr | Val | Gln |
| Asp | Leu | Ala | Thr | | |
| 290 | 295 | 300 | | | |
| Gln | Ile | Cys | Lys | Gln | Gln |
| Ser | Pro | Asp | Ala | Asp | Arg |
| Val | Asp | Ser | Thr | | |
| 305 | 310 | 315 | 320 | | |
| Thr | Leu | Leu | Gly | Asn | Ala |
| Cys | Gln | Asp | Cys | Ala | Lys |
| Arg | Lys | Leu | Glu | | |
| 325 | 330 | 335 | | | |
| Glu | Asn | Gly | Ile | Glu | Val |
| Ser | Lys | Lys | Arg | Thr | Gln |
| Ser | Asp | Thr | Asp | | |

340 345 350
 Asp Ala Gly Gly Ser
 355

<210> 2809

<211> 501

<212> PRT

<213> Homo sapiens

<400> 2809

Met Gln Glu His Lys Leu Lys Val Ala Arg Leu Asp Asn Ile Phe Leu
 1 5 10 15
 Thr Arg Met His Trp Ser Asn Val Gly Gly Leu Ser Gly Met Ile Leu
 20 25 30
 Thr Leu Lys Glu Thr Gly Leu Pro Lys Cys Val Leu Ser Gly Pro Pro
 35 40 45
 Gln Leu Glu Lys Tyr Leu Glu Ala Ile Lys Ile Phe Ser Gly Pro Leu
 50 55 60
 Lys Gly Ile Glu Leu Ala Val Arg Pro His Ser Ala Pro Glu Tyr Glu
 65 70 75 80
 Asp Glu Thr Met Thr Val Tyr Gln Ile Pro Ile His Ser Glu Gln Arg
 85 90 95
 Arg Gly Lys His Gln Pro Trp Gln Ser Pro Glu Arg Pro Leu Ser Arg
 100 105 110
 Leu Ser Pro Glu Arg Ser Ser Asp Ser Glu Ser Asn Glu Asn Glu Pro
 115 120 125
 His Leu Pro His Gly Val Ser Gln Arg Arg Gly Val Arg Asp Ser Ser
 130 135 140
 Leu Val Val Ala Phe Ile Cys Lys Leu His Leu Lys Arg Gly Asn Phe
 145 150 155 160
 Leu Val Leu Lys Ala Lys Glu Met Gly Leu Pro Val Gly Thr Ala Ala
 165 170 175
 Ile Ala Pro Ile Ile Ala Ala Val Lys Asp Gly Lys Ser Ile Thr His
 180 185 190
 Glu Gly Arg Glu Ile Leu Ala Glu Glu Leu Cys Thr Pro Pro Asp Pro

| | | |
|---------------------------------|-------------------------------------|-----|
| 195 | 200 | 205 |
| Gly Ala Ala Phe Val Val Val | Glu Cys Pro Asp Glu Ser Phe Ile Gln | |
| 210 | 215 | 220 |
| Pro Ile Cys Glu Asn Ala Thr Phe | Gln Arg Tyr Gln Gly Lys Ala Asp | |
| 225 | 230 | 235 |
| 240 | | |
| Ala Pro Val Ala Leu Val Val His | Met Ala Pro Ala Ser Val Leu Val | |
| 245 | 250 | 255 |
| Asp Ser Arg Tyr Gln Gln Trp Met | Glu Arg Phe Gly Pro Asp Thr Gln | |
| 260 | 265 | 270 |
| His Leu Val Leu Asn Glu Asn Cys | Ala Ser Val His Asn Leu Arg Ser | |
| 275 | 280 | 285 |
| His Lys Ile Gln Thr Gln Leu Asn | Leu Ile His Pro Asp Ile Phe Pro | |
| 290 | 295 | 300 |
| Leu Leu Thr Ser Phe Arg Cys Lys | Lys Glu Gly Pro Thr Leu Ser Val | |
| 305 | 310 | 315 |
| 320 | | |
| Pro Met Val Gln Gly Glu Cys Leu | Leu Lys Tyr Gln Leu Arg Pro Arg | |
| 325 | 330 | 335 |
| Arg Glu Trp Gln Arg Asp Ala Ile | Ile Thr Cys Asn Pro Glu Glu Phe | |
| 340 | 345 | 350 |
| Ile Val Glu Ala Leu Gln Leu Pro | Asn Phe Gln Gln Ser Val Gln Glu | |
| 355 | 360 | 365 |
| Tyr Arg Arg Ser Ala Gln Asp Gly | Pro Ala Pro Ala Glu Lys Arg Ser | |
| 370 | 375 | 380 |
| Gln Tyr Pro Glu Ile Ile Phe Leu | Gly Thr Gly Ser Ala Ile Pro Met | |
| 385 | 390 | 395 |
| 400 | | |
| Lys Ile Arg Asn Val Ser Ala Thr | Leu Val Asn Ile Ser Pro Asp Thr | |
| 405 | 410 | 415 |
| Ser Leu Leu Leu Asp Cys Gly Glu | Gly Thr Phe Gly Gln Leu Cys Arg | |
| 420 | 425 | 430 |
| His Tyr Gly Asp Gln Val Asp Arg | Val Leu Gly Thr Leu Ala Ala Val | |
| 435 | 440 | 445 |
| Phe Val Ser His Leu His Ala Asp | His His Thr Val Ser Val Gly Leu | |
| 450 | 455 | 460 |
| Asp His Lys Ala Gly Ala Trp Arg | Arg His Cys His Val Glu Leu Ala | |
| 465 | 470 | 475 |
| 480 | | |
| Leu Trp Leu Arg Leu Phe Leu Arg | Phe Gln Thr Cys Pro Glu Leu Leu | |

485 490 495
 Leu Leu Ile Ser Gly
 500

<210> 2810

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2810

Met Thr Pro Arg Ser Arg Gly Pro Glu Val Glu Val Lys Arg Ala Glu
 1 5 10 15
 Pro Arg Asp Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln
 20 25 30
 Trp Gly Ser Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln
 35 40 45
 Pro Pro Pro Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val
 50 55 60
 Pro Ala Gly Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg
 65 70 75 80
 Gly Ala Pro Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr
 85 90 95
 Pro Pro Gly Gly Phe Pro Pro Pro Gln Gly Phe Pro Gln Gly Tyr Gly
 100 105 110
 Ala Pro Pro Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Pro
 115 120 125
 Asp Gln Phe Ala Pro Pro Gly Val Pro Pro Pro Pro Ala Thr Pro Gly
 130 135 140
 Ala Ala Pro Leu Ala Phe Pro Pro Pro Pro Ser Gln Ala Ala Pro Asp
 145 150 155 160
 Met Ser Lys Pro Pro Thr Ala Gln Pro Asp Phe Pro Tyr Gly Gln Tyr
 165 170 175
 Gly Tyr Gly Gln Asp Leu Ser Gly Phe Gly Gln Gly Val Ser Asp Pro
 180 185 190
 Ser Gln Gln Pro Pro Ser Tyr Gly Gly Pro Ser Val Pro Gly Ser Gly

| | | |
|---|-----|-----|
| 195 | 200 | 205 |
| Gly Pro Pro Ala Gly Gly Ser Gly Phe Gly Arg Gly Gln Asn His Asn | | |
| 210 | 215 | 220 |
| Val Gln Gly Phe His Pro Tyr Arg Arg | | |
| 225 | 230 | |

<210> 2811

<211> 443

<212> PRT

<213> Homo sapiens

<400> 2811

| | | | |
|---|-----|-----|-----|
| Met Ile Ala Gly Ala Lys Glu Lys Met Arg Ser Asp Leu Leu Leu Glu | | | |
| 1 | 5 | 10 | 15 |
| Gly Phe Asn Asn Tyr Thr Phe Leu Ser Asn Gly Phe Val Pro Ile Pro | | | |
| 20 | 25 | 30 | |
| Ala Ala Gln Asp Asp Glu Met Phe Gln Glu Thr Val Glu Ala Met Ala | | | |
| 35 | 40 | 45 | |
| Ile Met Gly Phe Ser Glu Glu Glu Gln Leu Ser Ile Leu Lys Val Val | | | |
| 50 | 55 | 60 | |
| Ser Ser Val Leu Gln Leu Gly Asn Ile Val Phe Lys Lys Glu Arg Asn | | | |
| 65 | 70 | 75 | 80 |
| Thr Asp Gln Ala Ser Met Pro Asp Asn Thr Ala Ala Gln Lys Val Cys | | | |
| 85 | 90 | 95 | |
| His Leu Met Gly Ile Asn Val Thr Asp Phe Thr Arg Ser Ile Leu Thr | | | |
| 100 | 105 | 110 | |
| Pro Arg Ile Lys Val Gly Arg Asp Val Val Gln Lys Ala Gln Thr Lys | | | |
| 115 | 120 | 125 | |
| Glu Gln Ala Asp Phe Ala Val Glu Ala Leu Ala Lys Ala Thr Tyr Glu | | | |
| 130 | 135 | 140 | |
| Arg Leu Phe Arg Trp Ile Leu Thr Arg Val Asn Lys Ala Leu Asp Lys | | | |
| 145 | 150 | 155 | 160 |
| Thr His Arg Gln Gly Ala Ser Phe Leu Gly Ile Leu Asp Ile Ala Gly | | | |
| 165 | 170 | 175 | |
| Phe Glu Ile Phe Glu Val Asn Ser Phe Glu Gln Leu Cys Ile Asn Tyr | | | |

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Thr Asn Glu Lys Leu Gln Gln Leu Phe Asn His Thr Met Phe Ile Leu | | |
| 195 | 200 | 205 |
| Glu Gln Glu Glu Tyr Gln Arg Glu Gly Ile Glu Trp Asn Phe Ile Asp | | |
| 210 | 215 | 220 |
| Phe Gly Leu Asp Leu Gln Pro Cys Ile Glu Leu Ile Glu Arg Pro Asn | | |
| 225 | 230 | 235 |
| Asn Pro Pro Gly Val Leu Ala Leu Leu Asp Glu Glu Cys Trp Phe Pro | | |
| 245 | 250 | 255 |
| Lys Ala Thr Asp Lys Ser Phe Val Glu Lys Leu Cys Thr Glu Gln Gly | | |
| 260 | 265 | 270 |
| Ser His Pro Lys Phe Gln Lys Pro Lys Gln Leu Lys Asp Lys Thr Glu | | |
| 275 | 280 | 285 |
| Phe Ser Ile Ile His Tyr Ala Gly Lys Val Asp Tyr Asn Ala Ser Ala | | |
| 290 | 295 | 300 |
| Trp Leu Thr Lys Asn Met Asp Pro Leu Asn Asp Asn Val Thr Ser Leu | | |
| 305 | 310 | 315 |
| Leu Asn Ala Ser Ser Asp Lys Phe Val Ala Asp Leu Trp Lys Asp Val | | |
| 325 | 330 | 335 |
| Asp Arg Ile Val Gly Leu Asp Gln Met Ala Lys Met Thr Glu Ser Ser | | |
| 340 | 345 | 350 |
| Leu Pro Ser Ala Ser Lys Thr Lys Lys Gly Met Phe Arg Thr Val Gly | | |
| 355 | 360 | 365 |
| Gln Leu Tyr Lys Glu Gln Leu Gly Lys Leu Met Thr Thr Leu Arg Asn | | |
| 370 | 375 | 380 |
| Thr Thr Pro Asn Phe Val Arg Cys Ile Ile Pro Asn His Glu Lys Arg | | |
| 385 | 390 | 395 |
| Val Arg Pro Ala Ala Gln Thr Leu Gly Leu Pro Glu Ala Arg Ala Val | | |
| 405 | 410 | 415 |
| Pro Ser Gly His Ser Val Pro Arg Ala Pro Ser Ala Pro Thr Tyr Pro | | |
| 420 | 425 | 430 |
| Glu Asp Pro Ile Phe His Val Gly Lys Ala Ile | | |
| 435 | 440 | |

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2812

```

Met His Trp Ala Leu Thr Gly Leu Asp Gly Lys Leu Pro Ser Cys His
  1             5             10             15
Phe Leu Ala Val Gly Leu Gln Val Gly Pro Ser Thr Ser Leu Cys Leu
          20             25             30
Ser Cys Leu Thr Asp Lys Ile Glu Ile Thr Thr Val Pro Thr Trp Asp
      35             40             45
Asp Phe Phe Ser Phe Leu Phe Phe Trp Phe Leu Phe Leu Leu Phe Phe
      50             55             60
Ile Phe Leu Arg Trp Ser Leu Thr Leu Val Ala Gln Ala Gly Val Gln
      65             70             75             80
Trp Leu Asp Ile Gly Ser Leu Gln Pro Pro Pro Pro Gly Phe Lys Gln
          85             90             95
Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg His Pro Pro
          100             105             110
Pro Cys Pro Ala Ser Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro
          115             120             125
Tyr Trp Pro Gly Trp Ser
      130

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<210> 2813

<211> 1253

<212> PRT

<213> Homo sapiens

<400> 2813

```

Met Ile Lys Glu Ala Arg Arg Thr Ala Glu Gln Ala Ser Lys Pro Lys
  1             5             10             15
Val Pro Pro Lys Ser Glu Lys Glu Asn Asp Pro Leu Arg Thr Pro Glu
          20             25             30
Ala Leu Pro Glu Glu Lys Lys Ile Glu Tyr Arg Leu Leu Lys Glu Glu

```

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Ile Ala Asn Arg Glu Lys Gln Arg Leu Ile Lys Ser Asp Gln Leu Lys | | |
| 50 | 55 | 60 |
| Thr Ser Ser Ser Ser Pro Ala Asn Ser Asp Val Glu Ile Asp Gly Ile | | |
| 65 | 70 | 75 |
| Gly Arg Ile Ala Met Val Thr Lys Gln Val Thr Asp Ala Glu Ser Lys | | |
| 85 | 90 | 95 |
| Leu Lys Lys His Arg Ile Leu Leu Met Lys Asp Glu Ser Val Leu Lys | | |
| 100 | 105 | 110 |
| Asn Leu Val Gln Gln Glu Ala Lys Lys Lys Glu Ser Val Arg Asn Ala | | |
| 115 | 120 | 125 |
| Glu Ala Lys Ile Thr Lys Leu Thr Glu Gln Leu Gln Ala Thr Glu Lys | | |
| 130 | 135 | 140 |
| Ile Leu Asn Val Asn Arg Met Phe Leu Lys Lys Leu Gln Glu Gln Ile | | |
| 145 | 150 | 155 |
| His Arg Val Gln Gln Arg Val Thr Ile Lys Lys Ala Leu Thr Leu Lys | | |
| 165 | 170 | 175 |
| Tyr Gly Glu Glu Leu Ala Arg Ala Lys Ala Val Ala Ser Lys Glu Ile | | |
| 180 | 185 | 190 |
| Gly Lys Arg Lys Leu Glu Gln Asp Arg Phe Gly Pro Asn Lys Met Met | | |
| 195 | 200 | 205 |
| Arg Leu Asp Ser Ser Pro Val Ser Ser Pro Arg Lys His Ser Ala Glu | | |
| 210 | 215 | 220 |
| Leu Ile Ala Met Glu Lys Arg Arg Leu Gln Lys Leu Glu Tyr Glu Tyr | | |
| 225 | 230 | 235 |
| Ala Leu Lys Ile Gln Lys Leu Lys Glu Ala Arg Ala Leu Lys Ala Lys | | |
| 245 | 250 | 255 |
| Glu Gln Gln Asn Ile Ser Pro Val Val Glu Glu Glu Pro Glu Phe Ser | | |
| 260 | 265 | 270 |
| Leu Pro Gln Pro Ser Leu His Asp Leu Thr Gln Asp Lys Leu Thr Leu | | |
| 275 | 280 | 285 |
| Asp Thr Glu Glu Asn Asp Val Asp Asp Glu Ile Leu Ser Gly Ser Ser | | |
| 290 | 295 | 300 |
| Arg Glu Arg Arg Arg Ser Phe Leu Glu Ser Asn Tyr Phe Thr Lys Pro | | |
| 305 | 310 | 315 |
| | | 320 |

Asn Leu Lys His Thr Asp Thr Ala Asn Lys Glu Cys Ile Asn Lys Leu
 325 330 335
 Asn Lys Asn Thr Val Glu Lys Pro Glu Leu Phe Leu Gly Leu Lys Ile
 340 345 350
 Gly Glu Leu Gln Lys Leu Tyr Ser Lys Ala Asp Ser Leu Lys Gln Leu
 355 360 365
 Ile Leu Lys Thr Thr Thr Gly Ile Thr Glu Lys Val Leu His Gly Gln
 370 375 380
 Glu Ile Ser Val Asp Val Asp Phe Val Thr Ala Gln Ser Lys Thr Met
 385 390 395 400
 Glu Val Lys Pro Cys Pro Phe Arg Pro Tyr His Ser Pro Leu Leu Val
 405 410 415
 Phe Lys Ser Tyr Arg Phe Ser Pro Tyr Tyr Arg Thr Lys Glu Lys Leu
 420 425 430
 Pro Leu Ser Ser Val Ser Tyr Ser Asn Met Ile Glu Pro Asp Gln Cys
 435 440 445
 Phe Cys Arg Phe Asp Leu Thr Gly Thr Cys Asn Asp Asp Asp Cys Gln
 450 455 460
 Trp Gln His Ile Gln Asp Tyr Thr Leu Ser Arg Lys Gln Leu Phe Gln
 465 470 475 480
 Asp Ile Leu Ser Tyr Asn Leu Ser Leu Ile Gly Cys Ala Glu Thr Ser
 485 490 495
 Thr Asn Glu Glu Ile Thr Ala Ser Ala Glu Lys Tyr Val Glu Lys Leu
 500 505 510
 Phe Gly Val Asn Lys Asp Arg Met Ser Met Asp Gln Met Ala Val Leu
 515 520 525
 Leu Val Ser Asn Ile Asn Glu Ser Lys Gly His Thr Pro Pro Phe Thr
 530 535 540
 Thr Tyr Lys Asp Lys Arg Lys Trp Lys Pro Lys Phe Trp Arg Lys Pro
 545 550 555 560
 Ile Ser Asp Asn Ser Phe Ser Ser Asp Glu Glu Gln Ser Thr Gly Pro
 565 570 575
 Ile Lys Tyr Ala Phe Gln Pro Glu Asn Gln Ile Asn Val Pro Ala Leu
 580 585 590
 Asp Thr Val Val Thr Pro Asp Asp Val Arg Tyr Phe Thr Asn Glu Thr
 595 600 605

Asp Asp Ile Ala Asn Leu Glu Ala Ser Val Leu Glu Asn Pro Ser His
 610 615 620
 Val Gln Leu Trp Leu Lys Leu Ala Tyr Lys Tyr Leu Asn Gln Asn Glu
 625 630 635 640
 Gly Glu Cys Ser Glu Ser Leu Asp Ser Ala Leu Asn Val Leu Ala Arg
 645 650 655
 Ala Leu Glu Asn Asn Lys Asp Asn Pro Glu Ile Trp Cys His Tyr Leu
 660 665 670
 Arg Leu Phe Ser Lys Arg Gly Thr Lys Asp Glu Val Gln Glu Met Cys
 675 680 685
 Glu Thr Ala Val Glu Tyr Ala Pro Asp Tyr Gln Ser Phe Trp Thr Phe
 690 695 700
 Leu His Leu Glu Ser Thr Phe Glu Glu Lys Asp Tyr Val Cys Glu Arg
 705 710 715 720
 Met Leu Glu Phe Leu Met Gly Ala Ala Lys Gln Glu Thr Ser Asn Ile
 725 730 735
 Leu Ser Phe Gln Leu Leu Glu Ala Leu Leu Phe Arg Val Gln Leu His
 740 745 750
 Ile Phe Thr Gly Arg Cys Gln Ser Ala Leu Ala Ile Leu Gln Asn Ala
 755 760 765
 Leu Lys Ser Ala Asn Asp Gly Ile Val Ala Glu Tyr Leu Lys Thr Ser
 770 775 780
 Asp Arg Cys Leu Ala Trp Leu Ala Tyr Ile His Leu Ile Glu Phe Asn
 785 790 795 800
 Ile Leu Pro Ser Lys Phe Tyr Asp Pro Ser Asn Asp Asn Pro Ser Arg
 805 810 815
 Ile Val Asn Thr Glu Ser Phe Val Met Pro Trp Gln Ala Val Gln Asp
 820 825 830
 Val Lys Thr Asn Pro Asp Met Leu Leu Ala Val Phe Glu Asp Ala Val
 835 840 845
 Lys Ala Cys Thr Asp Glu Ser Leu Ala Val Glu Glu Arg Ile Glu Ala
 850 855 860
 Cys Leu Pro Leu Tyr Thr Asn Met Ile Ala Leu His Gln Leu Leu Glu
 865 870 875 880
 Arg Tyr Glu Ala Ala Met Glu Leu Cys Lys Ser Leu Leu Glu Ser Cys
 885 890 895

Pro Ile Asn Cys Gln Leu Leu Glu Ala Leu Val Ala Leu Tyr Leu Gln
 900 905 910
 Thr Asn Gln His Asp Lys Ala Arg Ala Val Trp Leu Thr Ala Phe Glu
 915 920 925
 Lys Asn Pro Gln Asn Ala Glu Val Phe Tyr His Met Cys Lys Phe Phe
 930 935 940
 Ile Leu Gln Asn Arg Gly Asp Asn Leu Leu Pro Phe Leu Arg Lys Phe
 945 950 955 960
 Ile Ala Ser Phe Phe Lys Pro Gly Phe Glu Lys Tyr Asn Asn Leu Asp
 965 970 975
 Leu Phe Arg Tyr Leu Leu Asn Ile Pro Gly Pro Ile Asp Ile Pro Ser
 980 985 990
 Arg Leu Cys Lys Gly Asn Phe Asp Asp Asp Met Phe Asn His Gln Val
 995 1000 1005
 Pro Tyr Leu Trp Leu Ile Tyr Cys Leu Cys His Pro Leu Gln Ser Ser
 1010 1015 1020
 Ile Lys Glu Thr Val Glu Ala Tyr Glu Ala Ala Leu Gly Val Ala Met
 1025 1030 1035 1040
 Arg Cys Asp Ile Val Gln Lys Ile Trp Met Asp Tyr Leu Val Phe Ala
 1045 1050 1055
 Asn Asn Arg Ala Ala Gly Ser Arg Asn Lys Val Gln Glu Phe Lys Phe
 1060 1065 1070
 Phe Thr Asp Leu Val Asn Arg Cys Leu Val Thr Val Pro Ala Arg Tyr
 1075 1080 1085
 Pro Ile Pro Phe Ser Ser Ala Asp Tyr Trp Ser Asn Tyr Glu Phe His
 1090 1095 1100
 Asn Arg Val Ile Phe Phe Tyr Leu Ser Cys Val Pro Lys Thr Gln His
 1105 1110 1115 1120
 Ser Lys Thr Leu Glu Arg Phe Cys Ser Val Met Pro Ala Asn Ser Gly
 1125 1130 1135
 Leu Ala Leu Arg Leu Leu Gln His Glu Trp Glu Glu Ser Asn Val Gln
 1140 1145 1150
 Ile Leu Lys Leu Gln Ala Lys Met Phe Thr Tyr Asn Ile Pro Thr Cys
 1155 1160 1165
 Leu Ala Thr Trp Lys Ile Ala Ile Ala Ala Glu Ile Val Leu Lys Gly
 1170 1175 1180

<210> 2814
<211> 139
<212> PRT
<213> Homo sapiens

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Met | Arg | Gly | His | Trp | Lys | Val | Thr | Glu | Ile | Leu | Arg | Ile | Thr | Ile | Leu | |
| 1 | | 5 | | | | | | 10 | | | | | 15 | | | |
| Leu | Leu | Gly | Lys | Pro | Gly | Gly | Gly | Trp | Ala | His | Ser | Trp | Gly | Ala | Tyr | |
| 20 | | | | | | | 25 | | | | | 30 | | | | |
| Glu | Ser | Gly | Pro | Gly | Glu | Gly | Val | Arg | Ala | Pro | Trp | Lys | Ile | Leu | Arg | |
| 35 | | | | | 40 | | | | | 45 | | | | | | |
| Asp | Ala | Gly | Ile | Leu | Leu | Gly | Phe | Phe | Trp | Glu | Ala | Glu | Asp | Val | Ser | |
| 50 | | | | 55 | | | | | | 60 | | | | | | |
| Asp | Ile | Ala | Arg | Ile | Leu | Met | Glu | Ile | Arg | Gly | Pro | Gly | Asp | Arg | Asn | |
| 65 | | 70 | | | | | | 75 | | | | | 80 | | | |
| Pro | Gly | Asp | Ser | Glu | Ser | Leu | Leu | Gly | Lys | Phe | Leu | Gly | Gly | Arg | Ser | |
| 85 | | | | | | | 90 | | | | | 95 | | | | |
| Ser | Ser | Thr | Ser | Gly | His | Ser | Trp | Leu | Pro | Val | Trp | Lys | His | Leu | Pro | |
| 100 | | | | | | 105 | | | | | 110 | | | | | |
| Arg | Arg | Gly | Gly | Tyr | Gly | Asn | Ile | Arg | Lys | Ser | Arg | Val | Asn | Lys | Asn | |
| 115 | | | | 120 | | | | | | 125 | | | | | | |
| Arg | Arg | Thr | Asp | Arg | Gly | Lys | Ala | Glu | Ala | Arg | | | | | | |
| 130 | | | 135 | | | | | | | | | | | | | |

<210> 2815

<211> 133

<212> PRT

<213> Homo sapiens

<400> 2815

```

Met Gly Arg Val Val Ser Asp Gly Glu Leu Gly Phe Val Gly Arg Val
 1             5             10             15
Val Ser Asp Gly Glu Leu Gly Phe Val Gly Arg Val Val Ser Asp Gly
          20          25          30
Glu Leu Gly Phe Val Gly Arg Val Val Ser Asp Gly Glu Leu Gly Phe
          35          40          45
Val Ser Arg Val Val Ser Asp Ala Glu Leu Gly Phe Val Gly Arg Val
          50          55          60
Val Ser Asp Gly Glu Leu Glu Phe Val Gly Arg Val Val Ser Asp Ala
          65          70          75          80
Glu Leu Gly Phe Val Gly Arg Val Val Ser Asp Gly Glu Leu Gly Phe
          85          90          95
Val Gly Arg Val Val Ser Asp Ala Glu Leu Gly Phe Met Gly Arg Val
          100         105         110
Val Ser Asp Gly Glu Leu Gly Phe Val Gly Arg Val Val Gly Cys Pro
          115         120         125
Thr Val Ser Leu Phe
          130

```

<210> 2816

<211> 127

<212> PRT

<213> Homo sapiens

<400> 2816

```

Met Glu Gly Asp Cys Leu Lys Val Val Cys Ser Ser Gln Leu Ser Phe
 1             5             10             15

```

Phe Leu Val Thr Ser Pro Ser Ile Pro Leu Gly Arg Gly Arg Gly Gly
 20 25 30
 Val Gly Leu Ile Ala Phe Asn Leu Asp Ser Cys Thr Ile Pro His Gly
 35 40 45
 Ser Leu Leu Gln Thr Phe Ala Lys Asn Pro Ser Pro His Glu Gln Asn
 50 55 60
 Phe Ser Ala Cys Ser Leu Cys Ser Ser Lys Val Leu Leu Gly Asn Arg
 65 70 75 80
 Gln Phe Cys Arg His Phe His Cys Lys Gln Asn Pro Ser Glu Glu Met
 85 90 95
 Val Ala Ser Val Gln Asp Thr Asn Gln His Gly Asn Leu His Tyr Arg
 100 105 110
 Met Arg Thr Val Phe Pro Leu Pro Gln Val Gly His Arg Pro Pro
 115 120 125

<210> 2817

<211> 333

<212> PRT

<213> Homo sapiens

<400> 2817

Met Thr Cys Ser Val Thr His Ile Val Ser Phe Ser Leu Pro Phe Leu
 1 5 10 15
 Asn Pro Ser His Pro Ala Ser Thr Pro Gly His Thr Glu Asn Glu Gln
 20 25 30
 Pro Ser Leu Val Trp Phe Asp Arg Gly Lys Phe Tyr Leu Thr Phe Glu
 35 40 45
 Gly Ser Ser Arg Gly Pro Ser Pro Leu Thr Met Gly Ala Gln Asp Thr
 50 55 60
 Leu Pro Val Ala Ala Ala Phe Thr Glu Thr Val Asn Ala Tyr Phe Lys
 65 70 75 80
 Gly Ala Asp Pro Ser Lys Cys Ile Val Lys Ile Thr Gly Glu Met Val
 85 90 95
 Leu Ser Phe Pro Ala Gly Ile Thr Arg His Phe Ala Asn Asn Pro Ser
 100 105 110

Pro Ala Ala Leu Thr Phe Arg Val Ile Asn Phe Ser Arg Leu Glu His
 115 120 125

Val Leu Pro Asn Pro Gln Leu Leu Cys Cys Asp Asn Thr Gln Asn Asp
 130 135 140

Ala Asn Thr Lys Glu Phe Trp Val Asn Met Pro Asn Leu Met Thr His
 145 150 155 160

Leu Lys Lys Val Ser Glu Gln Lys Pro Gln Ala Thr Tyr Tyr Asn Val
 165 170 175

Asp Met Leu Lys Tyr Gln Val Ser Ala Gln Gly Ile Gln Ser Thr Pro
 180 185 190

Leu Asn Leu Ala Val Asn Trp Arg Cys Glu Pro Ser Ser Thr Asp Leu
 195 200 205

Arg Ile Asp Tyr Lys Tyr Asn Thr Asp Ala Met Thr Thr Ala Val Ala
 210 215 220

Leu Asn Asn Val Gln Phe Leu Val Pro Ile Asp Gly Gly Val Thr Lys
 225 230 235 240

Leu Gln Ala Val Leu Pro Pro Ala Val Trp Asn Ala Glu Gln Gln Arg
 245 250 255

Ile Leu Trp Lys Ile Pro Asp Ile Ser Gln Lys Ser Glu Asn Gly Gly
 260 265 270

Val Gly Ser Leu Leu Ala Arg Phe Gln Leu Ser Glu Gly Pro Ser Lys
 275 280 285

Pro Ser Pro Leu Val Val Gln Phe Thr Ser Glu Gly Ser Thr Leu Ser
 290 295 300

Gly Cys Asp Ile Glu Leu Val Gly Ala Gly Tyr Arg Phe Ser Leu Ile
 305 310 315 320

Lys Lys Arg Phe Ala Ala Gly Lys Tyr Leu Ala Asp Asn
 325 330

<210> 2818

<211> 296

<212> PRT

<213> Homo sapiens

<400> 2818

Met Thr Gly Lys Gln Ile Phe Gly Asn Ile Lys Glu Ala Ile Tyr Pro
 1 5 10 15
 Leu Ala Leu Asn Trp Trp Arg Arg Arg Lys Ala Arg Thr Asn Ser Glu
 20 25 30
 Lys Leu Tyr Ser Arg Trp Glu Gln Asp His Asp Leu Glu Ser Phe Gly
 35 40 45
 Pro Leu Gly Leu Phe Tyr Glu Tyr Leu Glu Thr Val Thr Gln Phe Gly
 50 55 60
 Phe Val Thr Leu Phe Val Ala Ser Phe Pro Leu Ala Pro Leu Leu Ala
 65 70 75 80
 Leu Ile Asn Asn Ile Val Glu Ile Arg Val Asp Ala Trp Lys Leu Thr
 85 90 95
 Thr Gln Tyr Arg Arg Thr Val Ala Ser Lys Ala His Ser Ile Gly Val
 100 105 110
 Trp Gln Asp Ile Leu Tyr Gly Met Ala Val Leu Ser Val Ala Thr Asn
 115 120 125
 Ala Phe Ile Val Ala Phe Thr Ser Asp Ile Ile Pro Arg Leu Val Tyr
 130 135 140
 Tyr Tyr Ala Tyr Ser Thr Asn Ala Thr Gln Pro Met Thr Gly Tyr Val
 145 150 155 160
 Asn Asn Ser Leu Ser Val Phe Leu Ile Ala Asp Phe Pro Asn His Thr
 165 170 175
 Ala Pro Ser Glu Lys Arg Asp Phe Ile Thr Cys Arg Tyr Arg Asp Tyr
 180 185 190
 Arg Tyr Pro Pro Asp Asp Glu Asn Lys Tyr Phe His Asn Met Gln Phe
 195 200 205
 Trp His Val Leu Ala Ala Lys Met Thr Phe Ile Ile Val Met Glu His
 210 215 220
 Val Val Phe Leu Val Lys Phe Leu Leu Ala Trp Met Ile Pro Asp Val
 225 230 235 240
 Pro Lys Asp Val Val Glu Arg Ile Lys Arg Glu Lys Leu Met Thr Ile
 245 250 255
 Lys Ile Leu His Asp Phe Glu Leu Asn Lys Leu Lys Glu Asn Leu Gly
 260 265 270
 Ile Asn Ser Asn Glu Phe Ala Lys His Val Met Ile Glu Glu Asn Lys

275 280 285
 Ala Gln Leu Ala Lys Ser Thr Leu
 290 295

<210> 2819

<211> 215

<212> PRT

<213> Homo sapiens

<400> 2819

Met Asp Glu Leu Pro Ala Ala Phe Val Asp Gly Ser Lys Asn Gly Gly
 1 5 10 15
 Asp Lys His Gly Ala Asn Ser Leu Lys Ile Thr Glu Lys Val Ser Gly
 20 25 30
 Gln His Val Glu Ile Gln Ala Lys Tyr Ile Gly Thr Thr Ile Val Val
 35 40 45
 Arg Gln Val Gly Arg Tyr Leu Thr Phe Ala Val Arg Met Pro Glu Glu
 50 55 60
 Val Val Asn Ala Val Glu Asp Trp Asp Ser Gln Gly Leu Tyr Leu Cys
 65 70 75 80
 Leu Arg Gly Cys Pro Leu Asn Gln Gln Ile Asp Phe Gln Ala Phe His
 85 90 95
 Thr Asn Ala Glu Gly Thr Gly Ala Arg Arg Leu Ala Ala Ala Ser Pro
 100 105 110
 Ala Pro Thr Ala Pro Glu Thr Phe Pro Tyr Glu Thr Ala Val Ala Lys
 115 120 125
 Cys Lys Glu Lys Leu Pro Val Glu Asp Leu Tyr Tyr Gln Ala Cys Val
 130 135 140
 Phe Asp Leu Leu Thr Thr Gly Asp Val Asn Phe Thr Leu Ala Ala Tyr
 145 150 155 160
 Tyr Ala Leu Glu Asp Val Lys Met Leu His Ser Asn Lys Asp Lys Leu
 165 170 175
 His Leu Tyr Glu Arg Thr Arg Asp Leu Pro Gly Arg Ala Ala Ala Gly
 180 185 190
 Leu Pro Leu Ala Pro Arg Pro Leu Leu Gly Ala Leu Val Pro Leu Leu

195 200 205
 Ala Leu Leu Pro Val Phe Cys
 210 215

<210> 2820

<211> 1520

<212> PRT

<213> Homo sapiens

<400> 2820

Met Tyr Gly Glu Asp Pro Ser Asn Ala Met Pro Val Ile Phe Gly Lys
 1 5 10 15
 Ser Ser Cys Ser Glu Phe Ser Lys Glu Ala Tyr Thr Ala Val Val Tyr
 20 25 30
 His Asn Arg Ser Pro Asp Phe His Glu Glu Ile Lys Val Lys Leu Pro
 35 40 45
 Ala Thr Leu Thr Asp His His His Leu Leu Phe Thr Phe Tyr His Val
 50 55 60
 Ser Cys Gln Gln Lys Gln Asn Thr Pro Leu Glu Thr Pro Val Gly Tyr
 65 70 75 80
 Thr Trp Ile Pro Met Leu Gln Asn Gly Arg Leu Lys Thr Gly Gln Phe
 85 90 95
 Cys Leu Pro Val Ser Leu Glu Lys Pro Pro Gln Ala Tyr Ser Val Leu
 100 105 110
 Ser Pro Glu Val Pro Leu Pro Gly Met Lys Trp Val Asp Asn His Lys
 115 120 125
 Gly Val Phe Asn Val Glu Val Val Ala Val Ser Ser Ile His Thr Gln
 130 135 140
 Asp Pro Tyr Leu Asp Lys Phe Phe Ala Leu Val Asn Ala Leu Asp Glu
 145 150 155 160
 Arg Leu Phe Pro Val Arg Ile Gly Asp Met Arg Ile Met Glu Asn Asn
 165 170 175
 Leu Glu Asn Glu Leu Lys Ser Ser Ile Ser Ala Leu Asn Ser Ser Gln
 180 185 190
 Leu Glu Pro Val Val Arg Phe Leu His Leu Leu Leu Asp Lys Leu Ile

| | | | | |
|---|-----|-----|-----|--|
| 195 | 200 | 205 | | |
| Leu Leu Val Ile Arg Pro Pro Val Ile Ala Gly Gln Ile Val Asn Leu | | | | |
| 210 | 215 | 220 | | |
| Gly Gln Ala Ser Phe Glu Ala Met Ala Ser Ile Ile Asn Arg Leu His | | | | |
| 225 | 230 | 235 | 240 | |
| Lys Asn Leu Glu Gly Asn His Asp Gln His Gly Arg Asn Ser Leu Leu | | | | |
| 245 | 250 | 255 | | |
| Ala Ser Tyr Ile His Tyr Val Phe Arg Leu Pro Asn Thr Tyr Pro Asn | | | | |
| 260 | 265 | 270 | | |
| Ser Ser Ser Pro Gly Pro Gly Gly Leu Gly Gly Ser Val His Tyr Ala | | | | |
| 275 | 280 | 285 | | |
| Thr Met Ala Arg Ser Ala Val Arg Pro Ala Ser Leu Asn Leu Asn Arg | | | | |
| 290 | 295 | 300 | | |
| Ser Arg Ser Leu Ser Asn Ser Asn Pro Asp Ile Ser Gly Thr Pro Thr | | | | |
| 305 | 310 | 315 | 320 | |
| Ser Pro Asp Asp Glu Val Arg Ser Ile Ile Gly Ser Lys Ala Met Asp | | | | |
| 325 | 330 | 335 | | |
| Arg Ser Cys Asn Arg Met Ser Ser His Thr Glu Thr Ser Ser Phe Leu | | | | |
| 340 | 345 | 350 | | |
| Gln Thr Leu Thr Gly Arg Leu Pro Thr Lys Lys Leu Phe His Glu Glu | | | | |
| 355 | 360 | 365 | | |
| Leu Ala Leu Gln Trp Val Val Cys Ser Gly Ser Val Arg Glu Ser Ala | | | | |
| 370 | 375 | 380 | | |
| Leu Gln Gln Ala Trp Phe Phe Phe Glu Leu Met Val Lys Ser Met Val | | | | |
| 385 | 390 | 395 | 400 | |
| His His Leu Tyr Phe Asn Asp Lys Leu Glu Ala Pro Arg Lys Ser Arg | | | | |
| 405 | 410 | 415 | | |
| Phe Pro Glu Arg Phe Met Asp Asp Ile Ala Ala Leu Val Ser Thr Ile | | | | |
| 420 | 425 | 430 | | |
| Ala Ser Asp Ile Val Ser Arg Phe Gln Lys Asp Thr Glu Met Val Glu | | | | |
| 435 | 440 | 445 | | |
| Arg Leu Asn Thr Ser Leu Ala Phe Phe Leu Asn Asp Leu Leu Ser Val | | | | |
| 450 | 455 | 460 | | |
| Met Asp Arg Gly Phe Val Phe Ser Leu Ile Lys Ser Cys Tyr Lys Gln | | | | |
| 465 | 470 | 475 | 480 | |
| Val Ser Ser Lys Leu Tyr Ser Leu Pro Asn Pro Ser Val Leu Val Ser | | | | |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 485 | | 490 | | 495 |
| Leu Arg Leu Asp Phe Leu Arg Ile Ile Cys Ser His Glu His Tyr Val | | | | | |
| | 500 | | 505 | | 510 |
| Thr Leu Asn Leu Pro Cys Ser Leu Leu Thr Pro Pro Ala Ser Pro Ser | | | | | |
| | 515 | | 520 | | 525 |
| Pro Ser Val Ser Ser Ala Thr Ser Gln Ser Ser Gly Phe Ser Thr Asn | | | | | |
| | 530 | | 535 | | 540 |
| Val Gln Asp Gln Lys Ile Ala Asn Met Phe Glu Leu Ser Val Pro Phe | | | | | |
| 545 | | 550 | | 555 | 560 |
| Arg Gln Gln His Tyr Leu Ala Gly Leu Val Leu Thr Glu Leu Ala Val | | | | | |
| | 565 | | 570 | | 575 |
| Ile Leu Asp Pro Asp Ala Glu Gly Leu Phe Gly Leu His Lys Lys Val | | | | | |
| | 580 | | 585 | | 590 |
| Ile Asn Met Val His Asn Leu Leu Ser Ser His Asp Ser Asp Pro Arg | | | | | |
| | 595 | | 600 | | 605 |
| Tyr Ser Asp Pro Gln Ile Lys Ala Arg Val Ala Met Leu Tyr Leu Pro | | | | | |
| | 610 | | 615 | | 620 |
| Leu Ile Gly Ile Ile Met Glu Thr Val Pro Gln Leu Tyr Asp Phe Thr | | | | | |
| 625 | | 630 | | 635 | 640 |
| Glu Thr His Asn Gln Arg Gly Arg Pro Ile Cys Ile Ala Thr Asp Asp | | | | | |
| | 645 | | 650 | | 655 |
| Tyr Glu Ser Glu Ser Gly Ser Met Ile Ser Gln Thr Val Ala Met Ala | | | | | |
| | 660 | | 665 | | 670 |
| Ile Ala Gly Thr Ser Val Pro Gln Leu Thr Arg Pro Gly Ser Phe Leu | | | | | |
| | 675 | | 680 | | 685 |
| Leu Thr Ser Thr Ser Gly Arg Gln His Thr Thr Phe Ser Ala Glu Ser | | | | | |
| | 690 | | 695 | | 700 |
| Ser Arg Ser Leu Leu Ile Cys Leu Leu Trp Val Leu Lys Asn Ala Asp | | | | | |
| 705 | | 710 | | 715 | 720 |
| Glu Thr Val Leu Gln Lys Trp Phe Thr Asp Leu Ser Val Leu Gln Leu | | | | | |
| | 725 | | 730 | | 735 |
| Asn Arg Leu Leu Asp Leu Leu Tyr Leu Cys Val Ser Cys Phe Glu Tyr | | | | | |
| | 740 | | 745 | | 750 |
| Lys Gly Lys Lys Val Phe Glu Arg Met Asn Ser Leu Thr Phe Lys Lys | | | | | |
| | 755 | | 760 | | 765 |
| Ser Lys Asp Met Arg Ala Lys Leu Glu Glu Ala Ile Leu Gly Ser Ile | | | | | |

| | | | |
|---|------|------|------|
| 770 | 775 | 780 | |
| Gly Ala Arg Gln Glu Met Val Arg Arg Ser Arg Gly Gln Leu Gly Thr | | | |
| 785 | 790 | 795 | 800 |
| Tyr Thr Ile Ala Ser Pro Pro Glu Arg Ser Pro Ser Gly Ser Ala Phe | | | |
| 805 | 810 | 815 | |
| Gly Ser Gln Gly Asn Leu Arg Trp Arg Lys Asp Met Thr His Trp Arg | | | |
| 820 | 825 | 830 | |
| Gln Asn Thr Glu Lys Leu Asp Lys Ser Arg Ala Glu Ile Glu His Glu | | | |
| 835 | 840 | 845 | |
| Ala Leu Ile Asp Gly Asn Leu Ala Thr Glu Ala Asn Leu Ile Ile Leu | | | |
| 850 | 855 | 860 | |
| Asp Thr Leu Glu Ile Val Val Gln Thr Val Ser Val Thr Glu Ser Lys | | | |
| 865 | 870 | 875 | 880 |
| Glu Ser Ile Leu Gly Gly Val Leu Lys Val Leu Leu His Ser Met Ala | | | |
| 885 | 890 | 895 | |
| Cys Asn Gln Ser Val Val Tyr Leu Gln His Cys Phe Ala Thr Gln Arg | | | |
| 900 | 905 | 910 | |
| Ala Leu Val Ser Lys Phe Pro Glu Leu Leu Phe Glu Glu Glu Thr Glu | | | |
| 915 | 920 | 925 | |
| Gln Cys Ala Asp Leu Cys Leu Arg Leu Leu Arg His Cys Ser Ser Ser | | | |
| 930 | 935 | 940 | |
| Ile Gly Thr Ile Arg Ser His Ala Ser Ala Ser Leu Tyr Leu Leu Met | | | |
| 945 | 950 | 955 | 960 |
| Arg Gln Asn Phe Glu Ile Gly Asn Asn Phe Ala Arg Val Lys Met Gln | | | |
| 965 | 970 | 975 | |
| Val Thr Met Ser Leu Ser Ser Leu Val Gly Thr Ser Gln Asn Phe Asn | | | |
| 980 | 985 | 990 | |
| Glu Glu Phe Leu Arg Arg Ser Leu Lys Thr Ile Leu Thr Tyr Ala Glu | | | |
| 995 | 1000 | 1005 | |
| Glu Asp Leu Glu Leu Arg Glu Thr Thr Phe Leu Asp Gln Val Gln Asp | | | |
| 1010 | 1015 | 1020 | |
| Leu Val Phe Asn Leu His Met Ile Leu Ser Asp Thr Val Lys Met Lys | | | |
| 1025 | 1030 | 1035 | 1040 |
| Glu His Gln Glu Asp Pro Glu Met Leu Ile Asp Leu Met Tyr Arg Ile | | | |
| 1045 | 1050 | 1055 | |
| Ala Lys Gly Tyr Gln Thr Ser Pro Asp Leu Arg Leu Thr Trp Leu Gln | | | |

| | | |
|---|------|------|
| 1060 | 1065 | 1070 |
| Asn Met Ala Gly Lys His Ser Glu Arg Ser Asn His Ala Glu Ala Ala | | |
| 1075 | 1080 | 1085 |
| Gln Cys Leu Val His Ser Ala Ala Leu Val Ala Glu Tyr Leu Ser Met | | |
| 1090 | 1095 | 1100 |
| Leu Glu Asp Arg Lys Tyr Leu Pro Val Gly Cys Val Thr Phe Gln Asn | | |
| 1105 | 1110 | 1115 |
| Ile Ser Ser Asn Val Leu Glu Glu Ser Ala Val Ser Asp Asp Val Val | | |
| 1125 | 1130 | 1135 |
| Ser Pro Asp Glu Glu Gly Ile Cys Ser Gly Lys Tyr Phe Thr Glu Ser | | |
| 1140 | 1145 | 1150 |
| Gly Leu Val Gly Leu Leu Glu Gln Ala Ala Ala Ser Phe Ser Met Ala | | |
| 1155 | 1160 | 1165 |
| Gly Met Tyr Glu Ala Val Asn Glu Val Tyr Lys Val Leu Ile Pro Ile | | |
| 1170 | 1175 | 1180 |
| His Glu Ala Asn Arg Asp Ala Lys Lys Leu Ser Thr Ile His Gly Lys | | |
| 1185 | 1190 | 1195 |
| Leu Gln Glu Ala Phe Ser Lys Ile Val His Gln Ser Thr Gly Trp Glu | | |
| 1205 | 1210 | 1215 |
| Arg Met Phe Gly Thr Tyr Phe Arg Val Gly Phe Tyr Gly Thr Lys Phe | | |
| 1220 | 1225 | 1230 |
| Gly Asp Leu Asp Glu Gln Glu Phe Val Tyr Lys Glu Pro Ala Ile Thr | | |
| 1235 | 1240 | 1245 |
| Lys Leu Ala Glu Ile Ser His Arg Leu Glu Gly Phe Tyr Gly Glu Arg | | |
| 1250 | 1255 | 1260 |
| Phe Gly Glu Asp Val Val Glu Val Ile Lys Asp Ser Asn Pro Val Asp | | |
| 1265 | 1270 | 1275 |
| Lys Cys Lys Leu Asp Pro Asn Lys Ala Tyr Ile Gln Ile Thr Tyr Val | | |
| 1285 | 1290 | 1295 |
| Glu Pro Tyr Phe Asp Thr Tyr Glu Met Lys Asp Arg Ile Thr Tyr Phe | | |
| 1300 | 1305 | 1310 |
| Asp Lys Asn Tyr Asn Leu Arg Arg Phe Met Tyr Cys Thr Pro Phe Thr | | |
| 1315 | 1320 | 1325 |
| Leu Asp Gly Arg Ala His Gly Glu Leu His Glu Gln Phe Lys Arg Lys | | |
| 1330 | 1335 | 1340 |
| Thr Ile Leu Thr Thr Ser His Ala Phe Pro Tyr Ile Lys Thr Arg Val | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | His | Trp | Ser | Trp | Asn | Trp | Lys | Ala | Gln | Val | Gln | Gly | Pro | Phe | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Leu | Ile | Ile | Cys | Val | Pro | Phe | Arg | Lys | Ser | Pro | Thr | Ser | Trp | Ala |
| | | | 20 | | | | | 25 | | | | | | 30 | |
| Ser | Val | Phe | Ser | Ser | Ile | Glu | Cys | Gly | Phe | Gly | Gln | Asp | Val | Leu | Phe |
| | | | 35 | | | | | 40 | | | | | | 45 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Ile | Leu | Lys | Lys | Ile | Glu | Thr | Glu | Phe | Cys | His | Val | Ala | Gln |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Leu | Glu | Leu | Leu | Asp | Ser | Ser | His | Leu | Pro | Ala | Leu | Ala | Phe |
| 65 | | | | | | 70 | | | | | 75 | | | | 80 |
| Gln | Ser | Thr | Gly | Ile | Thr | Gly | Val | Ser | His | His | Ser | Trp | Pro | Gly | Gln |
| | | | | 85 | | | | | | 90 | | | | | 95 |
| Asp | Val | Leu | Thr | Asn | Ser | Phe | Gln | Leu | Gln | Arg | Tyr | Tyr | Val | Ile | Leu |
| | | | | 100 | | | | | | 105 | | | | | 110 |

<210> 2822

<211> 446

<212> PRT

<213> Homo sapiens

<400> 2822

[illegible]

Leu Lys Ala Trp Leu Asn Glu His Arg Lys Asn Pro Tyr Pro Thr Lys
 165 170 175
 Gly Glu Lys Ile Met Leu Ala Ile Ile Thr Lys Met Thr Leu Thr Gln
 180 185 190
 Val Ser Thr Trp Phe Ala Asn Ala Arg Arg Arg Leu Lys Lys Glu Asn
 195 200 205
 Lys Met Thr Trp Ala Pro Lys Asn Lys Gly Gly Glu Glu Arg Lys Ala
 210 215 220
 Glu Gly Gly Glu Glu Asp Ser Leu Gly Cys Leu Thr Ala Asp Thr Lys
 225 230 235 240
 Glu Val Thr Ala Ser Gln Glu Ala Arg Gly Leu Arg Leu Ser Asp Leu
 245 250 255
 Glu Asp Leu Glu Glu Glu Glu Glu Glu Glu Glu Ala Glu Asp Glu
 260 265 270
 Glu Val Val Ala Thr Ala Gly Asp Arg Leu Thr Glu Phe Arg Lys Gly
 275 280 285
 Ala Gln Ser Leu Pro Gly Pro Cys Ala Ala Ala Arg Glu Gly Arg Leu
 290 295 300
 Glu Arg Arg Glu Cys Gly Leu Ala Ala Pro Arg Phe Ser Phe Asn Asp
 305 310 315 320
 Pro Ser Gly Ser Glu Glu Ala Asp Phe Leu Ser Ala Glu Thr Gly Ser
 325 330 335
 Pro Arg Leu Thr Met His Tyr Pro Cys Leu Glu Lys Pro Arg Ile Trp
 340 345 350
 Ser Leu Ala His Thr Ala Thr Ala Ser Ala Val Glu Gly Ala Pro Pro
 355 360 365
 Ala Arg Pro Arg Pro Arg Ser Pro Glu Cys Arg Met Ile Pro Gly Gln
 370 375 380
 Pro Pro Ala Ser Ala Arg Arg Leu Ser Val Pro Arg Asp Ser Ala Cys
 385 390 395 400
 Asp Glu Ser Ser Cys Ile Pro Lys Ala Phe Gly Asn Pro Lys Phe Ala
 405 410 415
 Leu Gln Gly Leu Pro Leu Asn Cys Ala Pro Cys Pro Arg Arg Ser Glu
 420 425 430
 Pro Val Val Gln Cys Gln Tyr Pro Ser Gly Ala Glu Ala Gly
 435 440 445

<210> 2823

<211> 440

<212> PRT

<213> Homo sapiens

<400> 2823

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Met Leu Phe Gly Met Val Thr Lys Phe Cys Ser Gly His Ala Pro His
  1             5             10             15
Phe Pro Met Lys Lys Val Leu Leu Leu Leu Trp Lys Thr Val Leu Cys
          20             25             30
Thr Leu Gly Gly Phe Glu Glu Leu Gln Ser Met Lys Ala Glu Lys Arg
      35             40             45
Ser Ile Leu Gly Leu Pro Pro Leu Pro Glu Asp Ser Ile Lys Val Ile
      50             55             60
Arg Asn Met Arg Ala Ala Ser Pro Pro Ala Ser Ala Ser Asp Leu Ile
      65             70             75             80
Glu Gln Gln Gln Lys Arg Gly Arg Arg Glu His Lys Ala Leu Ile Lys
          85             90             95
Gln Asp Asn Leu Asp Ala Phe Asn Glu Arg Asp Pro Tyr Lys Ala Asp
      100             105             110
Asp Ser Arg Glu Glu Glu Glu Glu Asn Asp Asp Asp Asn Ser Leu Glu
      115             120             125
Gly Glu Thr Phe Leu Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu
      130             135             140
Gln His Pro Gln Thr Asp Arg Leu Thr Cys Pro Lys Gly Leu Pro Trp
      145             150             155             160
Ala Pro Lys Val Arg Glu Lys Asp Ile Glu Met Phe Leu Glu Ser Ser
          165             170             175
Arg Ser Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val
      180             185             190
Val Gly Leu Pro Arg Pro Ile His Glu Ser Ile Lys Thr Leu Lys Gln
      195             200             205
His Lys Tyr Thr Ser Ile Ala Glu Val Gln Ala Gln Met Glu Glu Glu
      210             215             220

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Tyr Leu Arg Ser Pro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val
 225 230 235 240
 Pro Ala Glu Thr Leu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr
 245 250 255
 Met Ile Ala Leu Leu Lys Ile Leu Leu Ala Ala Ala Pro Thr Ser Lys
 260 265 270
 Ala Lys Thr Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu
 275 280 285
 Met Pro Thr Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn
 290 295 300
 Arg His Lys Glu Val Ile Val Lys Ala Ile Ser Ala Val Leu Leu Leu
 305 310 315 320
 Leu Leu Lys His Phe Lys Leu Asn His Val Tyr Gln Val Pro Thr Gly
 325 330 335
 Leu Ser Leu Leu Ser Cys Gly Leu Gly Pro Arg Ala Leu Leu Leu Leu
 340 345 350
 Gln Pro Thr Arg Thr Gly Ala Leu Ala Phe Asp Pro Leu Glu Leu Cys
 355 360 365
 Met Asn Val Leu Arg His Gly Pro Ser Ala Lys Ala Phe His Pro Trp
 370 375 380
 Arg Lys Glu Gly Lys Val Pro Arg Ala Ala Pro Phe Phe Phe Phe Phe
 385 390 395 400
 Phe Ser Cys Trp Leu Gln Phe Glu Tyr Met Ala Gln His Leu Val Phe
 405 410 415
 Ala Asn Cys Ile Pro Leu Ile Leu Lys Phe Phe Asn Gln Asn Ile Met
 420 425 430
 Ser Tyr Ile Thr Ala Lys Asn Arg
 435 440

<210> 2824

<211> 329

<212> PRT

<213> Homo sapiens

<400> 2824

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gln | Gln | Met | Thr | Ser | Asn | Phe | Ile | Asp | Gln | Phe | Gly | Phe | Asn | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Lys | Phe | Ala | Asp | Gln | Asp | Asp | Ile | Gly | Asn | Val | Ser | Phe | Asp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ser | Asp | Ile | Asn | Phe | Thr | Leu | Asn | Thr | Asn | Glu | Ser | Gly | Asn | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Phe | Glu | Ala | Cys | Cys | Lys | Glu | Arg | Ile | Gln | Gln | Phe | Asp | Asp |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Gly | Ser | Asp | Glu | Glu | Asp | Ile | Trp | Glu | Glu | Lys | His | Ile | Ala | Phe |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Pro | Glu | Ser | Gln | Arg | Arg | Ser | Ser | Ser | Gly | Ser | Thr | Asp | Ser | Glu |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Glu | Ser | Thr | Asp | Ser | Glu | Glu | Glu | Asp | Gly | Ala | Lys | Gln | Asp | Leu | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Glu | Pro | Ser | Ser | Ala | Asn | Thr | Glu | Asp | Lys | Met | Glu | Val | Asp | Leu | Ser |
| | | 115 | | | | 120 | | | | | 125 | | | | |
| Glu | Pro | Pro | Asn | Trp | Ser | Ala | Asn | Phe | Asp | Val | Pro | Met | Glu | Thr | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Gly | Ala | Pro | Leu | Asp | Ser | Val | Gly | Ser | Asp | Val | Trp | Ser | Thr | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Pro | Met | Pro | Thr | Lys | Glu | Thr | Gly | Trp | Ala | Ser | Phe | Ser | Glu | Phe |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Thr | Ser | Ser | Leu | Ser | Thr | Lys | Asp | Ser | Leu | Arg | Ser | Asn | Ser | Pro | Val |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Met | Glu | Thr | Ser | Thr | Glu | Pro | Met | Asp | Pro | Leu | Thr | Pro | Ser | Ala |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Ala | Ala | Leu | Ala | Val | Gln | Pro | Glu | Ala | Ala | Gly | Ser | Val | Ala | Met | Glu |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Ala | Ser | Ser | Asp | Gly | Glu | Glu | Asp | Ala | Glu | Ser | Thr | Asp | Lys | Val | Thr |
| 225 | | | | 230 | | | | | 235 | | | | 240 | | |
| Glu | Thr | Val | Met | Asn | Gly | Gly | Met | Lys | Glu | Thr | Leu | Ser | Leu | Thr | Val |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Asp | Ala | Lys | Thr | Glu | Thr | Ala | Val | Phe | Lys | Arg | Val | Leu | Lys | Ser | Tyr |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Arg | Glu | Glu | Gly | Lys | Leu | Ser | Thr | Ser | Gln | Asp | Ala | Ala | Cys | Lys | Asp |
| | 275 | | | | | | 280 | | | | | | 285 | | |

Ala Glu Glu Cys Pro Glu Thr Ala Glu Ala Lys Cys Ala Ala Pro Arg
 290 295 300
 Pro Pro Ser Ser Ser Pro Glu Gln Arg Thr Gly Gln Pro Ser Ala Pro
 305 310 315 320
 Gly Asp Thr Ser Val Asn Gly Pro Val
 325

<210> 2825

<211> 606

<212> PRT

<213> Homo sapiens

<400> 2825

Met Leu Lys Thr Phe Leu Phe Leu Glu Lys Tyr Phe Pro Cys Ile Lys
 1 5 10 15
 Tyr Ser Ser Ala Cys Phe Pro Gly Thr Gly Leu Asp Val Tyr Asp Ile
 20 25 30
 Lys Phe Ala Val Leu Leu His Pro Gln Thr Ala Leu His Phe Gly Pro
 35 40 45
 Pro Pro Ser Leu Met Ala Phe Ser Ser Leu Cys Cys Arg Glu Leu Leu
 50 55 60
 Glu Thr Thr Cys Arg Leu Ala Asn Thr Leu Lys Arg His Gly Val His
 65 70 75 80
 Arg Gly Asp Arg Val Ala Ile Tyr Met Pro Val Ser Pro Leu Ala Val
 85 90 95
 Ala Ala Met Leu Ala Cys Ala Arg Ile Gly Ala Val His Thr Val Ile
 100 105 110
 Phe Ala Gly Phe Ser Ala Glu Ser Leu Ala Gly Arg Ile Asn Asp Ala
 115 120 125
 Lys Cys Lys Val Val Ile Thr Phe Asn Gln Gly Leu Arg Gly Gly Arg
 130 135 140
 Val Val Glu Leu Lys Lys Ile Val Asp Glu Ala Val Lys His Cys Pro
 145 150 155 160
 Thr Val Gln His Val Leu Val Ala His Arg Thr Asp Asn Lys Val His
 165 170 175

Met Gly Asp Leu Asp Val Pro Leu Glu Gln Glu Met Ala Lys Glu Asp
 180 185 190
 Pro Val Cys Ala Pro Glu Ser Met Gly Ser Glu Asp Met Leu Phe Met
 195 200 205
 Leu Tyr Thr Ser Gly Ser Thr Gly Met Pro Lys Gly Ile Val His Thr
 210 215 220
 Gln Ala Gly Tyr Leu Leu Tyr Ala Ala Leu Thr His Lys Leu Val Phe
 225 230 235 240
 Asp His Gln Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp
 245 250 255
 Ile Thr Gly His Ser Tyr Val Val Tyr Gly Pro Leu Cys Asn Gly Ala
 260 265 270
 Thr Ser Val Leu Phe Glu Ser Thr Pro Val Tyr Pro Asn Ala Gly Arg
 275 280 285
 Tyr Trp Glu Thr Val Glu Arg Leu Lys Ile Asn Gln Phe Tyr Gly Ala
 290 295 300
 Pro Thr Ala Val Arg Leu Leu Leu Lys Tyr Gly Asp Ala Trp Val Lys
 305 310 315 320
 Lys Tyr Asp Arg Ser Ser Leu Arg Thr Leu Gly Ser Val Gly Glu Pro
 325 330 335
 Ile Asn Cys Glu Ala Trp Glu Trp Leu His Arg Val Val Gly Asp Ser
 340 345 350
 Arg Cys Thr Leu Val Asp Thr Trp Trp Gln Thr Glu Thr Gly Gly Ile
 355 360 365
 Cys Ile Ala Pro Arg Pro Ser Glu Glu Gly Ala Glu Ile Leu Pro Ala
 370 375 380
 Met Ala Met Arg Pro Phe Phe Gly Ile Val Pro Val Leu Met Asp Glu
 385 390 395 400
 Lys Gly Ser Val Val Glu Gly Ser Asn Val Ser Gly Ala Leu Cys Ile
 405 410 415
 Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His Gln
 420 425 430
 Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe Thr
 435 440 445
 Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr Gly
 450 455 460

Arg Met Asp Asp Val Ile Asn Ile Ser Gly His Arg Leu Gly Thr Ala
 465 470 475 480
 Glu Ile Glu Asp Ala Ile Ala Asp His Pro Ala Val Pro Glu Ser Ala
 485 490 495
 Val Ile Gly Tyr Pro His Asp Ile Lys Gly Glu Ala Ala Phe Ala Phe
 500 505 510
 Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Val Gln Glu
 515 520 525
 Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro Asp
 530 535 540
 Glu Ile Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys Val
 545 550 555 560
 Met Arg Arg Leu Leu Arg Lys Ile Ile Thr Ser Glu Ala Gln Glu Leu
 565 570 575
 Gly Asp Thr Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile Leu
 580 585 590
 Ser Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys
 595 600 605

<210> 2826

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 2826

Met Pro Arg Thr Gly Phe Cys Cys Phe Thr Val Ser Leu Phe Val Trp
 1 5 10 15
 Met Asp Met Ser Met Cys Val Ser Leu Ser Arg Cys Val Cys Val Tyr
 20 25 30
 Val Ser Ile His Pro Pro Gln Cys Leu Asn Ser Leu Leu Val Ile Glu
 35 40 45
 Gly Lys Gly Leu Ile Ser Lys Gln Pro Gly Thr Cys Asp Pro Tyr Val
 50 55 60
 Lys Ile Ser Leu Ile Pro Glu Asp Ser Arg Leu Arg His Gln Lys Thr
 65 70 75 80

Gln Thr Val Pro Asp Cys Arg Asp Pro Ala Phe His Glu His Phe Phe
 85 90 95
 Phe Pro Val Gln Glu Glu Asp Asp Gln Lys Arg Leu Leu Val Thr Val
 100 105 110
 Trp Asn Arg Ala Ser Gln Ser Arg Gln Ser Gly Leu Ile Gly Cys Met
 115 120 125
 Ser Phe Gly Val Lys Ser Leu Leu Thr Pro Asp Lys Glu Ile Ser Gly
 130 135 140
 Trp Tyr Tyr Leu Leu Gly Glu His Leu Gly Arg Thr Lys His Leu Lys
 145 150 155 160
 Val Ala Arg Arg Arg Leu Arg Pro Leu Arg Asp Pro Leu Leu Arg Met
 165 170 175
 Pro Gly Gly Gly Asp Thr Glu Asn Gly Lys Lys Leu Lys Ile Thr Ile
 180 185 190
 Pro Arg Gly Lys Asp Gly Phe Gly Phe Thr Ile Cys Cys Asp Ser Pro
 195 200 205
 Val Arg Val Gln Ala Val Asp Ser Gly Gly Pro Ala Glu Arg Ala Gly
 210 215 220
 Leu Gln Gln Leu Asp Thr Val Leu Gln Leu Asn Glu Arg Pro Val Glu
 225 230 235 240
 His Trp Lys Cys Val Glu Leu Ala His Glu Ile Arg Ser Cys Pro Ser
 245 250 255

 Glu Ile Ile Leu Leu Val Trp Arg Met Val Pro Gln Val Lys Pro Gly
 260 265 270
 Pro Asp Gly Gly Val Leu Arg Arg Ala Ser Cys Lys Ser Thr His Asp
 275 280 285
 Leu Gln Ser Pro Pro Asn Lys Arg Glu Lys Asn Cys Thr His Gly Val
 290 295 300
 Gln Ala Arg Pro Glu Gln Arg His Ser Cys His Leu Val Cys Asp Ser
 305 310 315 320
 Ser Asp Gly Leu Leu Leu Gly Gly Trp Glu Arg Tyr Thr Glu Val Ala
 325 330 335
 Lys Arg Gly Gly Gln His Thr Leu Pro Ala Leu Ser Arg Ala Thr Ala
 340 345 350
 Pro Thr Asp Pro Asn Tyr Ile Ile Leu Ala Pro Leu Asn Pro Gly Ser

| | | |
|---|-----|-----|
| 355 | 360 | 365 |
| Gln Leu Leu Arg Pro Val Tyr Gln Glu Tyr Thr Ile Pro Glu Glu Ser | | |
| 370 | 375 | 380 |
| Gly Ser Pro Ser Lys Gly Lys Ser Tyr Thr Gly Leu Gly Lys Lys Ser | | |
| 385 | 390 | 395 |
| Arg Leu Met Lys Thr Val Gln Thr Met Lys Gly His Gly Asn Tyr Gln | | |
| 405 | 410 | 415 |
| Asn Cys Pro Val Val Arg Pro His Ala Thr His Ser Ser Tyr Gly Thr | | |
| 420 | 425 | 430 |
| Tyr Val Thr Leu Ala Pro Lys Val Leu Val Phe Pro Val Phe Val Gln | | |
| 435 | 440 | 445 |
| Pro Leu Asp Leu Cys Asn Pro Ala Arg Thr Leu Leu Leu Ser Glu Gly | | |
| 450 | 455 | 460 |
| Leu Leu Leu Tyr Glu Gly Arg Asn Lys Ala Ala Glu Val Thr Leu Phe | | |
| 465 | 470 | 475 |
| Ala Tyr Ser Asp Leu Leu Leu Phe Thr Lys Glu Asp Glu Pro Gly Arg | | |
| 485 | 490 | 495 |
| Cys Asp Val Leu Arg Asn Pro Leu Tyr Leu Gln Ser Val Lys Leu Gln | | |
| 500 | 505 | 510 |
| Glu Gly Ser Ser Glu Asp Leu Lys Phe Cys Val Leu Tyr Leu Ala Glu | | |
| 515 | 520 | 525 |
| Lys Ala Glu Cys Leu Phe Thr Leu Glu Ala His Ser Gln Glu Gln Lys | | |
| 530 | 535 | 540 |
| Lys Arg Val Cys Trp Cys Leu Ser Glu Asn Ile Ala Lys Gln Gln Gln | | |
| 545 | 550 | 555 |
| Leu Ala Ala Ser Pro Pro Asp Ser Lys Met Phe Glu Thr Glu Ala Asp | | |
| 565 | 570 | 575 |
| Glu Lys Arg Glu Met Ala Leu Glu Glu Gly Lys Gly Pro Gly Ala Glu | | |
| 580 | 585 | 590 |
| Asp Ser Pro Pro Ser Lys Glu Pro Ser Pro Gly Gln Glu Leu Pro Pro | | |
| 595 | 600 | 605 |
| Gly Gln Asp Leu Pro Pro Asn Lys Asp Ser Pro Ser Gly Gln Glu Pro | | |
| 610 | 615 | 620 |
| Ala Pro Ser Gln Glu Pro Leu Ser Ser Lys Asp Ser Ala Thr Ser Glu | | |
| 625 | 630 | 635 |
| Gly Ser Pro Pro Gly Pro Asp Ala Pro Pro Ser Lys Asp Val Pro Pro | | |

| | | |
|---|-----|-----|
| 645 | 650 | 655 |
| Cys Gln Glu Pro Pro Pro Ala Gln Asp Leu Ser Pro Cys Gln Asp Leu | | |
| 660 | 665 | 670 |
| Pro Ala Gly Gln Glu Pro Leu Pro His Gln Asp Pro Leu Leu Thr Lys | | |
| 675 | 680 | 685 |
| Asp Leu Pro Ala Ile Gln Glu Ser Pro Thr Arg Asp Leu Pro Pro Cys | | |
| 690 | 695 | 700 |
| Gln Asp Leu Pro Pro Ser Gln Val Ser Leu Pro Ala Lys Ala Leu Thr | | |
| 705 | 710 | 715 |
| Glu Asp Thr Met Ser Ser Gly Asp Leu Leu Ala Ala Thr Gly Asp Pro | | |
| 725 | 730 | 735 |
| Pro Ala Ala Pro Arg Pro Ala Phe Val Ile Pro Glu Val Arg Leu Asp | | |
| 740 | 745 | 750 |
| Ser Thr Tyr Ser Gln Lys Ala Gly Ala Glu Gln Gly Cys Ser Gly Asp | | |
| 755 | 760 | 765 |
| Glu Glu Asp Ala Glu Glu Ala Glu Glu Val Glu Glu Gly Glu Glu Gly | | |
| 770 | 775 | 780 |
| Glu Glu Asp Glu Asp Glu Asp Thr Ser Asp Asp Asn Tyr Gly Glu Arg | | |
| 785 | 790 | 795 |
| Ser Glu Ala Lys Arg Ser Ser Met Ile Glu Thr Gly Gln Gly Ala Glu | | |
| 805 | 810 | 815 |
| Gly Gly Leu Ser Leu Arg Val Gln Asn Ser Leu Arg Arg Arg Thr His | | |
| 820 | 825 | 830 |
| Ser Glu Gly Ser Leu Leu Gln Glu Pro Arg Gly Pro Cys Phe Ala Ser | | |
| 835 | 840 | 845 |
| Asp Thr Thr Leu His Cys Ser Asp Gly Glu Gly Ala Ala Ser Thr Trp | | |
| 850 | 855 | 860 |
| Gly Met Pro Ser Pro Ser Thr Leu Lys Lys Glu Leu Gly Arg Asn Gly | | |
| 865 | 870 | 875 |
| Gly Ser Met His His Leu Ser Leu Phe Phe Thr Gly His Arg Lys Met | | |
| 885 | 890 | 895 |
| Ser Gly Ala Asp Thr Val Gly Asp Asp Asp Glu Ala Ser Arg Lys Arg | | |
| 900 | 905 | 910 |
| Lys Ser Lys Asn Leu Ala Lys Asp Met Lys Asn Lys Leu Gly Ile Phe | | |
| 915 | 920 | 925 |
| Arg Arg Arg Asn Glu Ser Pro Gly Ala Pro Pro Ala Gly Lys Ala Asp | | |

930 935 940
 Lys Met Met Lys Ser Phe Lys Pro Thr Ser Glu Glu Ala Leu Lys Trp
 945 950 955 960
 Gly Glu Ser Leu Glu Lys Leu Leu Val His Lys Tyr Gly Leu Ala Val
 965 970 975
 Phe Gln Ala Phe Leu Arg Thr Glu Phe Ser Glu Glu Asn Leu Glu Phe
 980 985 990
 Trp Leu Ala Cys Glu Asp Phe Lys Lys Val Lys Ser Gln Ser Lys Met
 995 1000 1005
 Ala Ser Lys Ala Lys Lys Ile Phe Ala Glu Tyr Ile Ala Ile Gln Ala
 1010 1015 1020
 Cys Lys Glu Val Asn Leu Asp Ser Tyr Thr Arg Glu His Thr Lys Asp
 1025 1030 1035 1040
 Asn Leu Gln Ser Val Thr Arg Gly Cys Phe Asp Leu Ala Gln Lys Arg
 1045 1050 1055
 Ile Phe Gly Leu Met Glu Lys Asp Ser Tyr Pro Arg Phe Leu Arg Ser
 1060 1065 1070
 Asp Leu Tyr Leu Asp Leu Ile Asn Gln Lys Lys Met Ser Pro Pro Leu
 1075 1080 1085

<210> 2827

<211> 1317

<212> PRT

<213> Homo sapiens

<400> 2827

Met Glu Glu Glu Lys Asp Asp Ser Pro Gln Leu Thr Gly Ile Ala Val
 1 5 10 15
 Gly Ala Leu Leu Ala Leu Ala Leu Val Gly Val Leu Ile Leu Phe Met
 20 25 30
 Phe Arg Arg Leu Arg Gln Phe Arg Gln Ala Gln Pro Thr Pro Gln Tyr
 35 40 45
 Arg Phe Arg Lys Arg Asp Lys Val Met Phe Tyr Gly Arg Lys Ile Met
 50 55 60
 Arg Lys Val Thr Thr Leu Pro Asn Thr Leu Val Glu Asn Thr Ala Leu

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|---|-----|-----|-----|
| 65 | 70 | 75 | 80 |
| Pro Arg Gln Arg Ala Arg Lys Arg Thr Lys Val Leu Ser Leu Ala Lys | | | |
| | 85 | 90 | 95 |
| Arg Ile Leu Arg Phe Lys Lys Glu Tyr Pro Ala Leu Gln Pro Lys Glu | | | |
| | 100 | 105 | 110 |
| Pro Pro Pro Ser Leu Leu Glu Ala Asp Leu Thr Glu Phe Asp Val Lys | | | |
| | 115 | 120 | 125 |
| Asn Ser His Leu Pro Ser Glu Val Leu Tyr Met Leu Lys Asn Val Arg | | | |
| | 130 | 135 | 140 |
| Val Leu Gly His Phe Glu Lys Pro Leu Phe Leu Glu Leu Cys Lys His | | | |
| 145 | 150 | 155 | 160 |
| Ile Val Phe Val Gln Leu Gln Glu Gly Glu His Val Phe Gln Pro Arg | | | |
| | 165 | 170 | 175 |
| Glu Pro Asp Pro Ser Ile Cys Val Val Gln Asp Gly Arg Leu Glu Val | | | |
| | 180 | 185 | 190 |
| Cys Ile Gln Asp Thr Asp Gly Thr Glu Val Val Val Lys Glu Val Leu | | | |
| | 195 | 200 | 205 |
| Ala Gly Asp Ser Val His Ser Leu Leu Ser Ile Leu Asp Ile Ile Thr | | | |
| | 210 | 215 | 220 |
| Gly His Ala Ala Pro Tyr Lys Thr Val Ser Val Arg Ala Ala Ile Pro | | | |
| 225 | 230 | 235 | 240 |
| Ser Thr Ile Leu Arg Leu Pro Ala Ala Ala Phe His Gly Val Phe Glu | | | |
| | 245 | 250 | 255 |
| Lys Tyr Pro Glu Thr Leu Val Arg Val Val Gln Ile Ile Met Val Arg | | | |
| | 260 | 265 | 270 |
| Leu Gln Arg Val Thr Phe Leu Ala Leu His Asn Tyr Leu Gly Leu Thr | | | |
| | 275 | 280 | 285 |
| Thr Glu Leu Phe Asn Ala Glu Ser Gln Ala Ile Pro Leu Val Ser Val | | | |
| | 290 | 295 | 300 |
| Ala Ser Val Ala Ala Gly Lys Ala Lys Lys Gln Val Phe Tyr Gly Glu | | | |
| 305 | 310 | 315 | 320 |
| Glu Glu Arg Leu Lys Met Pro Pro Arg Leu Gln Glu Ser Cys Asp Ser | | | |
| | 325 | 330 | 335 |
| Asp His Gly Gly Gly Arg Pro Ala Ala Ala Gly Pro Leu Leu Lys Arg | | | |
| | 340 | 345 | 350 |
| Ser His Ser Val Pro Ala Pro Ser Ile Arg Lys Gln Ile Leu Glu Glu | | | |

| | | |
|---|-----|-----|
| 355 | 360 | 365 |
| Leu Glu Lys Pro Gly Ala Gly Asp Pro Asp Pro Ser Ala Pro Gln Gly | | |
| 370 | 375 | 380 |
| Gly Pro Gly Ser Ala Thr Ser Asp Leu Gly Met Ala Cys Asp Arg Ala | | |
| 385 | 390 | 395 |
| Arg Val Phe Leu His Ser Asp Glu Asp Pro Gly Ser Ser Val Ala Ser | | |
| 405 | 410 | 415 |
| Lys Ser Arg Lys Ser Val Met Val Ala Glu Ile Pro Ser Thr Val Ser | | |
| 420 | 425 | 430 |
| Gln His Ser Glu Ser His Thr Asp Glu Thr Leu Ala Ser Arg Lys Ser | | |
| 435 | 440 | 445 |
| Asp Ala Ile Phe Arg Ala Ala Lys Lys Asp Leu Leu Thr Leu Met Lys | | |
| 450 | 455 | 460 |
| Leu Glu Asp Ser Ser Leu Leu Asp Gly Arg Val Ala Leu Leu His Val | | |
| 465 | 470 | 475 |
| Pro Ala Gly Thr Val Val Ser Arg Gln Gly Asp Gln Asp Ala Ser Ile | | |
| 485 | 490 | 495 |
| Leu Phe Val Val Ser Gly Leu Leu His Val Tyr Gln Arg Lys Ile Gly | | |
| 500 | 505 | 510 |
| Ser Gln Glu Asp Thr Cys Leu Phe Leu Thr Arg Pro Gly Glu Met Val | | |
| 515 | 520 | 525 |
| Gly Gln Leu Ala Val Leu Thr Gly Glu Pro Leu Ile Phe Thr Val Lys | | |
| 530 | 535 | 540 |
| Ala Asn Arg Asp Cys Ser Phe Leu Ser Ile Ser Lys Ala His Phe Tyr | | |
| 545 | 550 | 555 |
| Glu Ile Met Arg Lys Gln Pro Thr Val Val Leu Gly Val Ala His Thr | | |
| 565 | 570 | 575 |
| Val Val Lys Arg Met Ser Ser Phe Val Arg Gln Ile Asp Phe Ala Leu | | |
| 580 | 585 | 590 |
| Asp Trp Val Glu Val Glu Ala Gly Arg Ala Ile Tyr Arg Gln Gly Asp | | |
| 595 | 600 | 605 |
| Lys Ser Asp Cys Thr Tyr Ile Met Leu Ser Gly Arg Leu Arg Ser Val | | |
| 610 | 615 | 620 |
| Ile Arg Lys Asp Asp Gly Lys Lys Arg Leu Ala Gly Glu Tyr Gly Arg | | |
| 625 | 630 | 635 |
| Gly Asp Leu Val Gly Val Val Glu Thr Leu Thr His Gln Ala Arg Ala | | |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 645 | | 650 | | 655 |
| Thr Thr Val His Ala Val Arg Asp Ser Glu Leu Ala Lys Leu Pro Ala | | | | | |
| | 660 | | 665 | | 670 |
| Gly Ala Leu Thr Ser Ile Lys Arg Arg Tyr Pro Gln Val Val Thr Arg | | | | | |
| | 675 | | 680 | | 685 |
| Leu Ile His Leu Leu Gly Glu Lys Ile Leu Gly Ser Leu Gln Gln Gly | | | | | |
| | 690 | | 695 | | 700 |
| Pro Val Thr Gly His Gln Leu Gly Leu Pro Thr Glu Gly Ser Lys Trp | | | | | |
| 705 | | 710 | | 715 | 720 |
| Asp Leu Gly Asn Pro Ala Val Asn Leu Ser Thr Val Ala Val Met Pro | | | | | |
| | 725 | | 730 | | 735 |
| Val Ser Glu Glu Val Pro Leu Thr Ala Phe Ala Leu Glu Leu Glu His | | | | | |
| | 740 | | 745 | | 750 |
| Ala Leu Ser Ala Ile Gly Pro Thr Leu Leu Leu Thr Ser Asp Asn Ile | | | | | |
| | 755 | | 760 | | 765 |
| Lys Arg Arg Leu Gly Ser Ala Ala Leu Asp Ser Val His Glu Tyr Arg | | | | | |
| | 770 | | 775 | | 780 |
| Leu Ser Ser Trp Leu Gly Gln Gln Glu Asp Thr His Arg Ile Val Leu | | | | | |
| 785 | | 790 | | 795 | 800 |
| Tyr Gln Ala Asp Gly Thr Leu Thr Pro Trp Thr Gln Arg Cys Val Arg | | | | | |
| | 805 | | 810 | | 815 |
| Gln Ala Asp Cys Ile Leu Ile Val Gly Leu Gly Asp Gln Glu Pro Thr | | | | | |
| | 820 | | 825 | | 830 |
| Val Gly Glu Leu Glu Arg Met Leu Glu Ser Thr Ala Val Arg Ala Gln | | | | | |
| | 835 | | 840 | | 845 |
| Lys Gln Leu Ile Leu Leu His Arg Glu Glu Gly Pro Ala Pro Ala Arg | | | | | |
| | 850 | | 855 | | 860 |
| Thr Val Glu Trp Leu Asn Met Arg Ser Trp Cys Ser Gly His Leu His | | | | | |
| 865 | | 870 | | 875 | 880 |
| Leu Cys Cys Pro Arg Arg Val Phe Ser Arg Arg Ser Leu Pro Lys Leu | | | | | |
| | 885 | | 890 | | 895 |
| Val Glu Met Tyr Lys His Val Phe Gln Arg Pro Pro Asp Arg His Ser | | | | | |
| | 900 | | 905 | | 910 |
| Asp Phe Ser Arg Leu Ala Arg Val Leu Thr Gly Asn Ala Ile Ala Leu | | | | | |
| | 915 | | 920 | | 925 |
| Val Leu Gly Gly Gly Gly Ala Arg Gly Cys Ala Gln Val Gly Val Leu | | | | | |

| | | | |
|---|------|------|------|
| 930 | 935 | 940 | |
| Lys Ala Leu Ala Glu Cys Gly Ile Pro Val Asp Met Val Gly Gly Thr | | | |
| 945 | 950 | 955 | 960 |
| Ser Ile Gly Ala Phe Val Gly Ala Leu Tyr Ser Glu Glu Arg Asn Tyr | | | |
| | 965 | 970 | 975 |
| Ser Gln Met Arg Ile Arg Ala Lys Gln Trp Ala Glu Gly Met Thr Ser | | | |
| | 980 | 985 | 990 |
| Leu Met Lys Ala Ala Leu Asp Leu Thr Tyr Pro Ile Thr Ser Met Phe | | | |
| | 995 | 1000 | 1005 |
| Ser Gly Ala Gly Phe Asn Ser Ser Ile Phe Ser Val Phe Lys Asp Gln | | | |
| 1010 | 1015 | 1020 | |
| Gln Ile Glu Asp Leu Trp Ile Pro Tyr Phe Ala Ile Thr Thr Asp Ile | | | |
| 1025 | 1030 | 1035 | 1040 |
| Thr Ala Ser Ala Met Arg Val His Thr Asn Gly Ser Leu Trp Arg Tyr | | | |
| | 1045 | 1050 | 1055 |
| Val Arg Ala Ser Met Ser Leu Ser Gly Tyr Met Pro Pro Leu Cys Asp | | | |
| | 1060 | 1065 | 1070 |
| Pro Lys Asp Gly His Leu Leu Met Asp Gly Gly Tyr Ile Asn Asn Leu | | | |
| | 1075 | 1080 | 1085 |
| Pro Ala Asp Val Ala Arg Ser Met Gly Ala Lys Val Val Ile Ala Ile | | | |
| 1090 | 1095 | 1100 | |
| Asp Val Gly Ser Arg Asp Glu Thr Asp Leu Thr Asn Tyr Gly Asp Ala | | | |
| 1105 | 1110 | 1115 | 1120 |
| Leu Ser Gly Trp Trp Leu Leu Trp Lys Arg Trp Asn Pro Leu Ala Thr | | | |
| | 1125 | 1130 | 1135 |
| Lys Val Lys Val Leu Asn Met Ala Glu Ile Gln Thr Arg Leu Ala Tyr | | | |
| | 1140 | 1145 | 1150 |
| Val Cys Cys Val Arg Gln Leu Glu Val Val Lys Ser Ser Asp Tyr Cys | | | |
| | 1155 | 1160 | 1165 |
| Glu Tyr Leu Arg Pro Pro Ile Asp Ser Tyr Ser Thr Leu Asp Phe Gly | | | |
| 1170 | 1175 | 1180 | |
| Lys Phe Asn Glu Ile Cys Glu Val Gly Tyr Gln His Gly Arg Thr Val | | | |
| 1185 | 1190 | 1195 | 1200 |
| Phe Asp Ile Trp Gly Arg Ser Gly Val Leu Glu Lys Met Leu Arg Asp | | | |
| | 1205 | 1210 | 1215 |

| | | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|
| Gln | Gln | Gly | Pro | Ser | Lys | Lys | Pro | Ala | Ser | Ala | Val | Leu | Thr | Cys | Pro |
| 1220 | | | | | 1225 | | | | | 1230 | | | | | |
| Asn | Ala | Ser | Phe | Thr | Asp | Leu | Ala | Glu | Ile | Val | Ser | Arg | Ile | Glu | Pro |
| 1235 | | | | | 1240 | | | | | 1245 | | | | | |
| Ala | Lys | Pro | Ala | Met | Val | Asp | Asp | Glu | Ser | Asp | Tyr | Gln | Thr | Glu | Tyr |
| 1250 | | | | | 1255 | | | | | 1260 | | | | | |
| Glu | Glu | Glu | Leu | Leu | Asp | Val | Pro | Arg | Asp | Ala | Tyr | Ala | Asp | Phe | Gln |
| 1265 | | | | | 1270 | | | | | 1275 | | | | | 1280 |
| Ser | Thr | Ser | Ala | Gln | Gln | Gly | Ser | Asp | Leu | Glu | Asp | Glu | Ser | Ser | Leu |
| 1285 | | | | | 1290 | | | | | 1295 | | | | | |
| Arg | His | Arg | His | Pro | Ser | Leu | Ala | Phe | Pro | Lys | Leu | Ser | Glu | Gly | Ser |
| 1300 | | | | | 1305 | | | | | 1310 | | | | | |
| Ser | Asp | Gln | Asp | Gly | | | | | | | | | | | |
| 1315 | | | | | | | | | | | | | | | |

<210> 2828

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2828

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Gln | Asn | Met | Ala | His | His | Gly | Ile | Thr | Gly | His | Ala | Trp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Met | Val | Ser | Val | Glu | Glu | Gly | Ile | Gln | Arg | Leu | Arg | Glu | Ile | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Leu | Glu | Trp | Ile | Cys | Leu | Pro | His | Ala | Ala | Phe | Val | Pro | Leu | Leu |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Glu | Trp | Ile | Cys | Pro | Pro | Tyr | Ser | Pro | Leu | Pro | Pro | Pro | Leu | Gln | Pro |
| | | | 50 | | | | 55 | | | | | 60 | | | |
| Ser | Thr | Thr | Leu | Leu | Leu | His | Pro | Ser | Ser | Ser | Ser | Ser | Pro | Pro | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Pro | Leu | Pro | Leu | Gln | Leu | Ser | Thr | Thr | Leu | Leu | Leu | Pro | Leu | Gln |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Phe | Ser | Phe | Leu | Cys | Ser | Pro | Pro | Pro | Pro | Pro | Leu | Pro | Ala | Leu | Leu |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Pro | Cys | Asn | Thr | Pro | Pro | Pro | Leu | Ala | Ala | Phe | Leu | Pro | Leu |
| 115 | | | | 120 | | | | 125 | | | | | | | |
| Leu | Leu | Pro | Leu | Gln | Pro | Ser | Thr | Leu | Leu | Pro | Cys | Ser | Ser | Thr | Leu |
| 130 | | | | 135 | | | | 140 | | | | | | | |
| Phe | Phe | Val | Ala | Leu | Leu | Leu | Ile | Gln | Pro | Ser | Thr | Pro | Pro | Leu | Ala |
| 145 | | | | 150 | | | | 155 | | | | 160 | | | |
| Ala | Leu | Leu | Pro | Pro | Leu | Pro | Pro | Pro | Val | Cys | Ser | Leu | Gln | Leu | Pro |
| 165 | | | | 170 | | | | 175 | | | | | | | |
| Pro | Pro | Pro | Ile | Leu | Leu | Ser | Leu | Ile | Phe | Pro | Gln | Asp | Pro | Ala | Leu |
| 180 | | | | 185 | | | | 190 | | | | | | | |
| Met | Pro | Ala | Pro | Gln | Ala | Phe | Ala | Asp | Pro | | | | | | |
| 195 | | | | 200 | | | | | | | | | | | |

<210> 2829

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2829

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Ser | Thr | Leu | Phe | Phe | Ser | Phe | Leu | Leu | Trp | Trp | Leu | Arg | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Asn | Glu | Trp | Ser | Leu | Tyr | Ser | Pro | Gly | Leu | Ser | Trp | Val | Val | Ala |
| | | | | 20 | | | | 25 | | | | | 30 | | |
| Ile | Met | Pro | Leu | Cys | Ser | Leu | Glu | Arg | Ala | Ala | Gly | Phe | Val | Glu | Leu |
| | | | | 35 | | | | 40 | | | | | 45 | | |
| Arg | Ile | Pro | Thr | Phe | Pro | Asp | Ile | Ala | Asn | Leu | Phe | Ser | Phe | Ser | Ser |
| | | | | 50 | | | | 55 | | | | | 60 | | |
| Thr | Ser | Pro | Leu | Glu | Lys | Ser | Tyr | Cys | Ser | Val | Pro | Glu | Gly | Leu | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Lys | Arg | Val | Gly | Asp | Ile | Pro | Arg | Glu | Phe | Gln | His | Pro | Phe | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ser | Gln | Ser | Glu | Met | Ala | Ala | Val | Lys | Ala | Ser | Thr | Ser | Lys | Ala |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Thr | Arg | Pro | Trp | Tyr | Ser | His | Pro | Val | Tyr | Ala | Arg | Tyr | Trp | Gln | His |
| | | | | 115 | | | | 120 | | | | | 125 | | |

Tyr His Gln Ala Met Ala Trp Met Gln Ser His His Asn Ala Tyr Arg
 130 135 140
 Lys Ala Val Glu Ser Cys Phe Asn Leu Pro Trp Tyr Leu Pro Ser Ala
 145 150 155 160
 Leu Leu Pro Gln Ser Ser Tyr Asp Asn Glu Ala Ala Tyr Pro Gln Ser
 165 170 175
 Phe Tyr Asp His His Val Ala Trp Gln Asp Tyr Pro Cys Ser Ser Ser
 180 185 190
 His Phe Arg Arg Ser Gly Gln His Pro Arg Tyr Ser Ser Arg Ile Gln
 195 200 205
 Ala Ser Thr Lys Glu Asp Gln Ala Leu Ser Lys Glu Glu Glu Met Glu
 210 215 220
 Thr Glu Ser Asp Ala Glu Val Glu Cys Asp Leu Ser Asn Met Glu Ile
 225 230 235 240
 Thr Glu Glu Leu Arg Gln Tyr Phe Ala Glu Thr Glu Arg His Arg Glu
 245 250 255
 Glu Arg Arg Arg Gln Gln Gln Leu Asp Ala Glu Arg Leu Asp Ser Tyr
 260 265 270
 Val Asn Ala Asp His Asp Leu Tyr Cys Asn Thr Arg Arg Ser Val Glu
 275 280 285
 Ala Pro Thr Glu Arg Pro Gly Glu Arg Arg Gln Ala Glu Met Lys Arg
 290 295 300
 Leu Tyr Gly Asp Ser Ala Ala Lys Ile Gln Ala Met Glu Ala Ala Val
 305 310 315 320
 Gln Leu Ser Phe Asp Lys His Cys Asp Arg Lys Gln Pro Lys Tyr Trp
 325 330 335
 Pro Val Ile Pro Leu Lys Phe
 340

<210> 2830

<211> 748

<212> PRT

<213> Homo sapiens

<400> 2830

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | His | Ile | Glu | Val | Ile | Val | Lys | Ala | Arg | Gln | Lys | Val | Lys | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Glu | Phe | Leu | Gln | Gln | Ala | Ala | Leu | Glu | Glu | Tyr | Gly | Pro | Glu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Val | Ala | Leu | Arg | Ser | Arg | Arg | Asp | Glu | Leu | His | Tyr | Leu | Arg | Lys |
| | | 35 | | | | | | 40 | | | | 45 | | | |
| Leu | Thr | Glu | Leu | Leu | Phe | Pro | Tyr | Ile | Leu | Pro | Pro | Lys | Ala | Thr | Asp |
| | 50 | | | | | | 55 | | | | | 60 | | | |
| Cys | Arg | Ser | Leu | Thr | Leu | Leu | Ile | Arg | Glu | Ile | Leu | Ser | Gly | Ser | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Leu | Pro | Ser | Leu | Asp | Phe | Leu | Ala | Asp | Pro | Asp | Thr | Val | Asn | His |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Leu | Leu | Ile | Ile | Phe | Ile | Asp | Asp | Ser | Pro | Pro | Glu | Lys | Ala | Thr | Glu |
| | | | 100 | | | | | | 105 | | | | | 110 | |
| Pro | Ala | Ser | Pro | Leu | Val | Pro | Phe | Leu | Gln | Lys | Phe | Ala | Glu | Pro | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Lys | Lys | Pro | Ser | Val | Leu | Lys | Leu | Glu | Leu | Lys | Gln | Ile | Arg | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Gln | Asp | Leu | Leu | Phe | Arg | Phe | Met | Asn | Phe | Leu | Lys | Gln | Glu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Val | His | Val | Leu | Gln | Phe | Cys | Leu | Thr | Val | Glu | Glu | Phe | Asn | Asp |
| | | | 165 | | | | | | | 170 | | | | 175 | |
| Arg | Ile | Leu | Arg | Pro | Glu | Leu | Ser | Asn | Asp | Glu | Met | Leu | Ser | Leu | His |
| | | 180 | | | | | | | 185 | | | | 190 | | |
| Glu | Glu | Leu | Gln | Lys | Ile | Tyr | Lys | Thr | Tyr | Cys | Leu | Asp | Glu | Ser | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Lys | Ile | Arg | Phe | Asp | Pro | Phe | Ile | Val | Glu | Glu | Ile | Gln | Arg | Ile |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Ala | Glu | Gly | Pro | Tyr | Ile | Asp | Val | Val | Lys | Leu | Gln | Thr | Met | Arg | Cys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Phe | Glu | Ala | Tyr | Glu | His | Val | Leu | Ser | Leu | Leu | Glu | Asn | Val | Phe |
| | | | 245 | | | | | | | 250 | | | | 255 | |
| Thr | Pro | Met | Phe | Cys | His | Ser | Asp | Glu | Tyr | Phe | Arg | Gln | Leu | Leu | Arg |
| | | 260 | | | | | | | 265 | | | | 270 | | |
| Gly | Ala | Glu | Ser | Pro | Thr | Arg | Asn | Ser | Lys | Leu | Asn | Arg | Gly | Ser | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |

Ser Leu Asp Asp Phe Arg Asn Thr Gln Lys Arg Gly Glu Ser Phe Gly
 290 295 300
 Ile Ser Arg Ile Gly Ser Lys Ile Lys Gly Val Phe Lys Ser Thr Thr
 305 310 315 320
 Met Glu Gly Ala Met Leu Pro Asn Tyr Gly Val Ala Glu Gly Glu Asp
 325 330 335
 Asp Phe Ile Glu Glu Gly Ile Val Val Met Gly Asp Asp Ser Pro Val
 340 345 350
 Glu Ala Val Ser Thr Pro Asn Thr Pro Arg Asn Leu Ala Ala Trp Lys
 355 360 365
 Ile Ser Ile Pro Tyr Val Asp Phe Phe Glu Asp Pro Ser Ser Glu Arg
 370 375 380
 Lys Glu Lys Lys Glu Arg Ile Pro Val Phe Cys Ile Asp Val Glu Arg
 385 390 395 400
 Asn Asp Arg Arg Ala Val Gly His Glu Pro Glu His Trp Ser Val Tyr
 405 410 415
 Arg Arg Tyr Leu Glu Phe Tyr Val Leu Glu Ser Lys Leu Thr Glu Phe
 420 425 430
 His Gly Ala Phe Pro Asp Ala Gln Leu Pro Ser Lys Arg Ile Ile Gly
 435 440 445
 Pro Lys Asn Tyr Glu Phe Leu Lys Ser Lys Arg Glu Glu Phe Gln Glu
 450 455 460
 Tyr Leu Gln Lys Leu Leu Gln His Pro Glu Leu Ser Asn Ser Gln Leu
 465 470 475 480
 Leu Ala Asp Phe Leu Ser Pro Asn Gly Gly Glu Thr Gln Phe Leu Asp
 485 490 495
 Lys Ile Leu Pro Asp Val Asn Leu Gly Lys Ile Ile Lys Ser Val Pro
 500 505 510
 Gly Lys Leu Met Lys Glu Lys Gly Gln His Leu Glu Pro Phe Ile Met
 515 520 525
 Asn Phe Ile Asn Ser Cys Glu Ser Pro Lys Pro Lys Pro Ser Arg Pro
 530 535 540
 Glu Leu Thr Ile Leu Ser Pro Thr Ser Glu Asn Asn Lys Lys Leu Phe
 545 550 555 560
 Asn Asp Leu Phe Lys Asn Asn Ala Asn Arg Ala Glu Asn Thr Glu Arg
 565 570 575

Lys Gln Asn Gln Asn Tyr Phe Met Glu Val Met Thr Val Glu Gly Val
 580 585 590
 Tyr Asp Tyr Leu Met Tyr Val Gly Arg Val Val Phe Gln Val Pro Asp
 595 600 605
 Trp Leu His His Leu Leu Met Gly Thr Arg Ile Leu Phe Lys Asn Thr
 610 615 620
 Leu Glu Met Tyr Thr Asp Tyr Tyr Leu Gln Cys Lys Leu Glu Gln Leu
 625 630 635 640
 Phe Gln Glu His Arg Leu Val Ser Leu Ile Thr Leu Leu Arg Asp Ala
 645 650 655
 Ile Phe Cys Glu Asn Thr Glu Pro Arg Ser Leu Gln Asp Lys Gln Lys
 660 665 670
 Gly Ala Lys Gln Thr Phe Glu Glu Met Met Asn Tyr Ile Pro Asp Leu
 675 680 685
 Leu Val Lys Cys Ile Gly Glu Glu Thr Lys Tyr Glu Ser Ile Arg Leu
 690 695 700
 Leu Phe Asp Gly Leu Gln Gln Pro Val Leu Asn Lys Gln Leu Thr Tyr
 705 710 715 720
 Val Leu Leu Asp Ile Val Ile Gln Glu Leu Phe Pro Glu Leu Asn Lys
 725 730 735
 Val Gln Lys Glu Val Thr Ser Val Thr Ser Trp Met
 740 745

<210> 2831

<211> 316

<212> PRT

<213> Homo sapiens

<400> 2831

Met Ala His Ser Val Ser Ala Asp Gly Lys Ser Pro Val Val Leu Ser
 1 5 10 15
 His Val Ser Leu Ser Ser Gln Gly Arg Ile Ala Cys Ala Asn Val Leu
 20 25 30
 Ser Asp Leu Tyr Ala Met Gly Val Thr Glu Cys Asp Asn Met Leu Met
 35 40 45

Leu Leu Gly Val Ser Asn Lys Met Thr Asp Arg Glu Arg Asp Lys Val
 .50 55 60
 Met Pro Leu Ile Ile Gln Gly Phe Lys Asp Ala Ala Glu Glu Ala Gly
 65 70 75 80
 Thr Ser Val Thr Gly Gly Gln Thr Val Leu Asn Pro Trp Ile Val Leu
 85 90 95
 Gly Gly Val Ala Thr Thr Val Cys Gln Pro Asn Glu Phe Ile Met Pro
 100 105 110
 Asp Asn Ala Val Pro Gly Asp Val Leu Val Leu Thr Lys Pro Leu Gly
 115 120 125
 Thr Gln Val Ala Val Ala Val His Gln Trp Leu Asp Ile Pro Glu Lys
 130 135 140
 Trp Asn Lys Ile Lys Leu Val Val Thr Gln Glu Asp Val Glu Leu Ala
 145 150 155 160
 Tyr Gln Glu Ala Met Met Asn Met Ala Arg Leu Asn Arg Thr Ala Ala
 165 170 175
 Gly Leu Met His Thr Phe Asn Ala His Ala Ala Thr Asp Ile Thr Gly
 180 185 190
 Phe Gly Ile Leu Gly His Ala Gln Asn Leu Ala Lys Gln Gln Arg Asn
 195 200 205
 Glu Val Ser Phe Val Ile His Asn Leu Pro Val Leu Ala Lys Met Ala
 210 215 220
 Ala Val Ser Lys Ala Cys Gly Asn Met Phe Gly Leu Met His Gly Thr
 225 230 235 240
 Cys Pro Glu Thr Ser Gly Gly Leu Leu Ile Cys Leu Ser Arg Glu Gln
 245 250 255
 Ala Ala Arg Phe Cys Ala Glu Ile Lys Ser Pro Lys Tyr Gly Glu Gly
 260 265 270
 His Gln Ala Trp Ile Ile Gly Ile Val Glu Lys Gly Asn Arg Thr Ala
 275 280 285
 Arg Ile Ile Asp Lys Pro Arg Ile Ile Glu Val Ala Pro Gln Val Ala
 290 295 300
 Thr Gln Asn Val Asn Pro Thr Pro Gly Ala Thr Ser
 305 310 315

<210> 2832

<211> 651

<212> PRT

<213> Homo sapiens

<400> 2832

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Met Leu Asp Arg Tyr Glu Tyr Gln Met Ser Ile Ser Ile Val Met Asn
  1             5             10             15
Ser Val Glu Pro Ser His Lys Ser Thr Gln Arg Pro Pro Pro Pro Gln
      20             25             30
Gly Arg Gln Arg Glu Arg Val Leu Lys Lys Thr Gly His Arg Leu Ser
      35             40             45
Lys Thr Lys Gln Lys Arg Asn Arg Lys Arg Asn Lys Lys Gln Asn Ser
      50             55             60
Gln Asn Arg Ile Met Glu Glu Asn Ser Leu Glu Phe Leu Ser Asp Leu
      65             70             75             80
Thr Pro Gly Asp Gln Asp Pro Ser Gln Ser Glu Glu Glu Asp Ile Glu
      85             90             95
Lys Thr Arg Arg Glu Ser Glu Tyr Pro Phe Ile Asp Gly Leu Gln Asn
      100            105            110
Glu Val Gly Asp Phe Val Thr Gly Tyr Lys Glu Lys Arg Trp Lys Asn
      115            120            125
Lys Asp Pro Lys Asp Ser Phe Gln Asn Val Met Ser Ile Val Glu Leu
      130            135            140
Asp Asn Thr Pro Lys Asn Tyr Leu Ser Lys Glu Gly Asp Asn Leu Phe
      145            150            155            160
Val Ser Leu Leu Leu Arg Pro Asn Glu Ile Ser Val Thr Cys Pro Ile
      165            170            175
Leu Thr Gln Asn Leu Ser Cys Val Thr Thr Asp Asp Cys Ser Gly Met
      180            185            190
Lys Val Glu Lys His Ile Arg Asn Arg His Thr Ile Ala Leu Asp Thr
      195            200            205
Gln Asp Leu Ser Ala Glu Thr Ser Cys Leu Phe Met Lys Lys Arg Glu
      210            215            220
Ile Val Asp Lys Asn Leu Ser His Glu Pro Ile Leu Cys His Gln His

```

| | | | |
|---|-----|-----|-----|
| 225 | 230 | 235 | 240 |
| Gly Ile Arg Met Ser Asp Lys Val Leu Arg Glu Glu Gln Val Tyr Thr | | | |
| 245 | 250 | 255 | |
| Thr Lys Ile Asn His Trp Ala Phe Phe Thr Thr Asn Leu Ser Asp Glu | | | |
| 260 | 265 | 270 | |
| Asp Leu Gln Leu Gly Ser Asp Arg Gln Pro Tyr Phe Gly Ser Trp Pro | | | |
| 275 | 280 | 285 | |
| Ala Gly Pro His Lys Phe Ile Cys Glu Gln Arg Pro Lys Lys Asp Arg | | | |
| 290 | 295 | 300 | |
| Ala Cys Lys Leu Ala Gly Pro Asp Ser Arg Gly Gln Trp Ile Gln Met | | | |
| 305 | 310 | 315 | 320 |
| Ile Phe Thr Ser Val Ala Ala Ser Glu Pro Gly Asn Asn Pro Glu Ile | | | |
| 325 | 330 | 335 | |
| Leu Thr Asp Lys Leu Leu Ile Gly Asn Glu Asp Phe Ser Pro Pro Pro | | | |
| 340 | 345 | 350 | |
| Glu Thr Met Asp Ser Phe Ile Glu Thr Asn Leu Phe Arg Ser Cys Leu | | | |
| 355 | 360 | 365 | |
| Pro Gln Pro Asp Ile Pro Lys Asn Ala Leu Glu Ser Thr Lys Asn Lys | | | |
| 370 | 375 | 380 | |
| Lys Arg Arg Lys Lys Arg Ile Phe Asn Leu Val Pro Asn Phe Asp Leu | | | |
| 385 | 390 | 395 | 400 |
| Leu Gly Gln Ser Arg Ile Gly Val Lys Glu Arg Glu Lys Cys Asp Leu | | | |
| 405 | 410 | 415 | |
| Leu Thr Lys Asn His Gly Leu Lys Ile Thr Leu Gly Glu Glu Lys Asp | | | |
| 420 | 425 | 430 | |
| Arg Ile Ser Glu Arg Asn Ser Glu Glu Glu Asn Lys Gln Lys Leu Met | | | |
| 435 | 440 | 445 | |
| Thr Phe Asp His His Pro Leu Trp Phe Tyr Leu Asp Ile Ile Lys Ala | | | |
| 450 | 455 | 460 | |
| Thr Pro Leu Asn Ile Asp Gly Gln Arg Tyr Ser His Cys Leu Ser Phe | | | |
| 465 | 470 | 475 | 480 |
| Asn Arg Leu Arg Cys Ser Ala Ser Leu Tyr Lys Asn Tyr Ile Pro Ser | | | |
| 485 | 490 | 495 | |
| Phe Val Leu His Asn Leu Ser Ser Ile Trp Lys Pro Ser Phe Thr Asn | | | |
| 500 | 505 | 510 | |
| Lys Lys Leu Phe Leu Thr Phe Glu Ser Gln Thr Arg Val Gly Asn Lys | | | |

515 520 525
 Leu Asn Asp Ala Gly Phe Ile Ser Pro Glu Ile Leu His Ser His Pro
 530 535 540
 Asp Thr Ser Cys Ser Leu Gly Val Thr Ser Asp Phe His Phe Leu Asn
 545 550 555 560
 Glu Arg Phe Asp Arg Lys Leu Lys Arg Trp Glu Glu Pro Lys Glu Leu
 565 570 575
 Pro Ala Glu Asp Ser Gln Asp Leu Thr Ser Thr Asp Tyr Arg Ser Leu
 580 585 590
 Glu Leu Pro Leu Ser Gln Gly Phe Ala Phe Gln Leu Val Lys Leu Phe
 595 600 605
 Gly Ser Pro Gly Val Pro Met Glu Ser Leu Leu Pro Asp Asp Tyr Val
 610 615 620
 Val Pro Leu Asp Trp Lys Thr Leu Lys Met Ile Tyr Leu Gln Trp Lys
 625 630 635 640
 Met Ser Val Glu Lys Arg Gln Lys Lys Ile Gly
 645 650

<210> 2833

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2833

Met Ala Ala Pro Gly Pro Leu Glu Asn Gln Val Val Leu Ala Leu Lys
 1 5 10 15
 Ala Phe Tyr Asn Leu Phe Pro Ser Leu Leu Leu Thr Ala Thr Ala Pro
 20 25 30
 Ser His His Ser Pro Pro Pro Gly Pro Cys Arg His Val Ala Leu Pro
 35 40 45
 Cys Gly Lys Ala Cys Leu Gln Pro Ala Gly His Ser Ser Thr Ala Pro
 50 55 60
 Ser Leu Ile Ser Phe Pro Lys Asn Val Ile Tyr Asn Ser Thr Leu Asn
 65 70 75 80
 Pro Ile Ser Pro Pro Phe Phe His Phe Phe Leu Val Ala Ser Phe Ile

| | | | |
|---|-----|-----|----|
| | 85 | 90 | 95 |
| Ser Ile Cys Gln Phe Thr Ser Ser Ile His Ser Leu Ser Tyr Pro Phe | | | |
| 100 | 105 | 110 | |
| Leu Val Ala Ala Met Cys Met Arg Gly Leu | | | |
| 115 | 120 | | |

<210> 2834

<211> 501

<212> PRT

<213> Homo sapiens

<400> 2834

| | | | |
|---|-----|-----|-----|
| Met Val Phe Phe Cys Pro Val Pro Leu Phe Cys Pro Gly Leu Ala Pro | | | |
| 1 | 5 | 10 | 15 |
| Arg Asp Pro Arg Pro Cys Ser Phe Leu Pro Pro Val Thr Phe Gly Asn | | | |
| 20 | 25 | 30 | |
| Gly Gln Arg Pro Ser Ala Val Leu Gly Gly Pro His Gly His Val Gly | | | |
| 35 | 40 | 45 | |
| Asp Pro Ala His Arg Ala Ala Ala Leu Gln Gln Val Trp Arg Pro Glu | | | |
| 50 | 55 | 60 | |
| Ile Pro Arg His Leu Gln Gly Asn Pro Pro Leu Leu Thr Pro Pro Cys | | | |
| 65 | 70 | 75 | 80 |
| Pro Gln Val Leu Leu His Pro Met Val Arg Asp Arg Gln Gly Arg Lys | | | |
| 85 | 90 | 95 | |
| Met Ser Lys Ser Leu Gly Asn Val Leu Asp Pro Arg Asp Ile Ile Ser | | | |
| 100 | 105 | 110 | |
| Gly Val Glu Met Gln Leu Leu Gln Glu Lys Leu Arg Ser Gly Asn Leu | | | |
| 115 | 120 | 125 | |
| Asp Pro Ala Glu Leu Ala Ile Val Ala Ala Ala Gln Lys Lys Asp Phe | | | |
| 130 | 135 | 140 | |
| Pro His Gly Ile Pro Glu Cys Gly Thr Asp Ala Leu Arg Phe Thr Leu | | | |
| 145 | 150 | 155 | 160 |
| Cys Ser His Gly Val Gln Ala Gly Asp Leu His Leu Ser Val Ser Glu | | | |
| 165 | 170 | 175 | |
| Val Gln Ser Cys Arg His Phe Cys Asn Lys Ile Trp Asn Ala Leu Arg | | | |

| | | |
|-----------------------------|-------------------------|-------------|
| 180 | 185 | 190 |
| Phe Ile Leu Asn Ala Leu Gly | Glu Lys Phe Val Pro Gln | Pro Ala Glu |
| 195 | 200 | 205 |
| Glu Leu Ser Pro Ser Ser Pro | Met Asp Ala Trp Ile Leu | Ser Arg Leu |
| 210 | 215 | 220 |
| Ala Leu Ala Ala Gln Glu Cys | Glu Arg Gly Phe Leu Thr | Arg Glu Leu |
| 225 | 230 | 235 |
| Ser Leu Val Thr His Ala Leu | His His Phe Trp Leu His | Asn Leu Cys |
| 245 | 250 | 255 |
| Asp Val Tyr Leu Glu Ala Val | Lys Pro Val Leu Trp His | Ser Pro Arg |
| 260 | 265 | 270 |
| Pro Leu Gly Pro Pro Gln Val | Leu Phe Ser Cys Ala Asp | Leu Gly Leu |
| 275 | 280 | 285 |
| Arg Leu Leu Ala Pro Leu Met | Pro Phe Leu Ala Glu Glu | Leu Trp Gln |
| 290 | 295 | 300 |
| Arg Leu Pro Pro Arg Pro Gly | Cys Pro Pro Ala Pro Ser | Ile Ser Val |
| 305 | 310 | 315 |
| Ala Pro Tyr Pro Ser Ala Cys | Ser Leu Glu His Trp Arg | Gln Pro Glu |
| 325 | 330 | 335 |
| Leu Glu Arg Arg Phe Ser Arg | Val Gln Glu Val Val Gln | Val Leu Arg |
| 340 | 345 | 350 |
| Ala Leu Arg Ala Thr Tyr Gln | Leu Thr Lys Ala Arg Pro | Arg Val Leu |
| 355 | 360 | 365 |
| Leu Gln Ser Ser Glu Pro Gly | Asp Gln Gly Leu Phe Glu | Ala Phe Leu |
| 370 | 375 | 380 |
| Glu Pro Leu Gly Thr Leu Gly | Tyr Cys Gly Ala Val Gly | Leu Leu Pro |
| 385 | 390 | 395 |
| Pro Gly Thr Ala Ala Pro Ser | Gly Trp Ala Gln Ala Pro | Leu Ser Asp |
| 405 | 410 | 415 |
| Thr Ala Gln Val Tyr Met Glu | Leu Gln Gly Leu Val Asp | Pro Gln Ile |
| 420 | 425 | 430 |
| Gln Leu Pro Leu Leu Ala Ala | Arg Arg Tyr Lys Leu Gln | Lys Gln Leu |
| 435 | 440 | 445 |
| Asp Ser Leu Thr Ala Arg Thr | Pro Ser Glu Gly Glu Ala | Gly Thr Gln |
| 450 | 455 | 460 |

Arg Gln Gln Lys Leu Ser Ser Leu Gln Leu Glu Leu Ser Lys Leu Asp
 465 470 475 480
 Lys Ala Ala Ser His Leu Arg Gln Leu Met Asp Glu Pro Pro Ala Pro
 485 490 495
 Gly Ser Pro Glu Leu
 500

<210> 2835

<211> 304

<212> PRT

<213> Homo sapiens

<400> 2835

Met Ile Phe Leu Thr Ile Ala Leu Ser Phe Ser Gly Ala Ser Tyr His
 1 5 10 15
 Lys Tyr Pro Asn Ile Phe Ser Asn Val Gln Phe Ile Leu Lys Ala Ser
 20 25 30
 Glu Ile Ile Gly Lys Arg Glu Leu Arg Ser Glu Ser Ile Phe Arg Pro
 35 40 45
 Val Glu Asp Lys Lys Arg Tyr Glu Asn Thr Asp Ser Asp Met Gly Gly
 50 55 60
 Tyr Glu Ile Asn His Leu Leu Trp His Cys Val Ala Ala Trp Ser Cys
 65 70 75 80
 Val Gln Asn Asn Ser Pro Gln Leu Asn Asn Val Leu Glu His Leu Ile
 85 90 95
 Phe His Lys Thr Gln Leu Gln Lys Lys Cys Trp Leu Asp Ser Val Leu
 100 105 110
 Ala Leu Leu Val Leu Gly Glu Ala Ala Lys Leu Asn Met Ala Cys Leu
 115 120 125
 Lys Ala Leu Met Asp Val Val Arg Asp Phe Val Ser Ser Ile Met Ser
 130 135 140
 Val Gln Asn Gln Glu Glu Ser Cys Lys Val Asp Gly Phe Ser Trp Ala
 145 150 155 160
 Trp Asn Val Val Tyr Ile Tyr Thr Val Ile Leu Ala Glu Ile Cys Leu
 165 170 175

Tyr Ala Ala Thr Ser Asp Leu Arg Lys Thr Ala Leu Ile Gly Phe Cys
 180 185 190
 His Cys Lys Ser Ser Gln Lys Asn Ile Leu Tyr Leu Asp Lys Ser Val
 195 200 205
 Pro Pro Glu Leu Lys Glu Thr Ser Ile Leu Ser Leu Leu Glu Tyr Phe
 210 215 220
 Ser Ser Lys Met Ser Glu Asn Cys Asp Gln Val Val Trp Thr Gly Tyr
 225 230 235 240
 Tyr Gly Leu Val Tyr Asn Leu Val Lys Ile Ser Trp Glu Leu Gln Gly
 245 250 255
 Asp Glu Glu Gln Asp Gly Leu Arg Asn Met Ile Trp Gln Thr Leu Gln
 260 265 270
 Lys Thr Lys Asp Tyr Glu Glu Asp Val Arg Ile Gln Asn Ala Ile Asn
 275 280 285
 Ile Ala Gln Glu Gly Lys Pro Thr Arg Thr Leu Asp Lys Leu Phe Leu
 290 295 300

<210> 2836

<211> 259

<212> PRT

<213> Homo sapiens

<400> 2836

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro
 1 5 10 15
 Asp Phe Phe Leu Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val
 20 25 30
 Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Gln Glu Phe Glu Ser
 35 40 45
 Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
 50 55 60
 Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe Phe
 65 70 75 80
 Asp Asn Lys Ile Gln Val Lys Pro Val Thr Pro Val Cys Arg Val Pro
 85 90 95

Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys Gln Glu Ser
 100 105 110
 Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn Asp Val Pro
 115 120 125
 Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn Ser Ser Phe
 130 135 140
 His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala Val His Lys
 145 150 155 160
 Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp Ala Gly Ser
 165 170 175
 Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu Asn Ile Gly
 180 185 190
 Gly Ile Ile Gly Gly Val Leu Val Val Leu Ala Val Leu Ala Leu Ile
 195 200 205
 Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe Ile Asn Asn
 210 215 220
 Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro Asp Gly Val
 225 230 235 240
 Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His Lys Ser Ser
 245 250 255
 Phe Val Ile

<210> 2837

<211> 374

<212> PRT

<213> Homo sapiens

<400> 2837

Met Met Asn Gly Gly Met Ser Leu Val Ala Phe Val Leu Leu Asn Glu
 1 5 10 15
 Cys Val Gly Thr Ala Tyr Trp Ala Leu Ala Gly Ser Ile Gly Gly Leu
 20 25 30
 Phe Phe Ala Val Gly Ile Ala Gln Tyr Ala Leu Leu Gly Tyr Phe Ile
 35 40 45

Arg Ser Trp Arg Thr Leu Ala Ile Leu Val Asn Leu Gln Gly Thr Val
 50 55 60
 Val Phe Leu Leu Ser Leu Phe Ile Pro Glu Ser Pro Arg Trp Leu Tyr
 65 70 75 80
 Ser Gln Gly Arg Leu Ser Glu Ala Glu Glu Ala Leu Tyr Leu Ile Ala
 85 90 95
 Lys Arg Asn Arg Lys Leu Lys Cys Thr Phe Ser Leu Thr His Pro Ala
 100 105 110
 Asn Arg Ser Cys Arg Glu Thr Gly Ser Phe Leu Asp Leu Phe Arg Tyr
 115 120 125
 Arg Val Leu Leu Gly His Thr Leu Ile Leu Met Phe Ile Trp Phe Val
 130 135 140
 Cys Ser Leu Val Tyr Tyr Gly Leu Thr Leu Ser Ala Gly Asp Leu Gly
 145 150 155 160
 Gly Ser Ile Tyr Ala Asn Leu Ala Leu Ser Gly Leu Ile Glu Ile Pro
 165 170 175
 Ser Tyr Pro Leu Cys Ile Tyr Leu Ile Asn Gln Lys Trp Phe Gly Arg
 180 185 190
 Lys Arg Thr Leu Ser Ala Phe Leu Cys Leu Gly Gly Leu Ala Cys Leu
 195 200 205
 Ile Val Met Phe Leu Pro Glu Lys Lys Asp Thr Gly Val Phe Ala Val
 210 215 220
 Val Asn Ser His Ser Leu Ser Leu Leu Gly Lys Leu Thr Ile Ser Ala
 225 230 235 240
 Ala Phe Asn Ile Val Tyr Ile Tyr Thr Ser Glu Leu Tyr Pro Thr Val
 245 250 255
 Ile Arg Asn Val Gly Leu Gly Thr Cys Ser Met Phe Ser Arg Val Gly
 260 265 270
 Gly Ile Ile Ala Pro Phe Ile Pro Ser Leu Lys Tyr Val Gln Trp Ser
 275 280 285
 Leu Pro Phe Ile Val Phe Gly Ala Thr Gly Leu Thr Ser Gly Leu Leu
 290 295 300
 Ser Leu Leu Leu Pro Glu Thr Leu Asn Ser Pro Leu Leu Glu Thr Phe
 305 310 315 320
 Ser Asp Leu Gln Val Tyr Ser Tyr Arg Arg Leu Gly Glu Glu Ala Leu
 325 330 335

Ser Leu Gln Ala Leu Asp Pro Gln Gln Cys Val Asp Lys Glu Ser Ser
 340 345 350
 Leu Gly Ser Glu Ser Glu Glu Glu Glu Glu Phe Tyr Asp Ala Asp Glu
 355 360 365
 Glu Thr Gln Met Ile Lys
 370

<210> 2838

<211> 383

<212> PRT

<213> Homo sapiens

<400> 2838

Met Asn Ala Gly Pro Ser Trp Asn Lys Val Gln His Ser Lys Asn Ser
 1 5 10 15
 Ser Gly Lys Arg Gln Ser Lys Ser Gln Val Pro His Ala Ser Ser Gln
 20 25 30
 Pro Arg Ser Ser Leu Thr Ala Val Thr Gln Pro Thr Glu Glu Lys Leu
 35 40 45
 Lys Glu Ser Ile Ser Pro Glu Ala Arg Arg Lys Arg Asn Pro Leu Gly
 50 55 60
 Ser Arg Cys Gln Gly Ala Ser Gly Asn Lys Leu Phe Leu Asp Phe Gln
 65 70 75 80
 Ser Met Lys Ile Ile Lys Glu Asn Ala Asp Glu Asp Ser Ala Ser Asp
 85 90 95
 Leu Ser Asp Ser Glu Arg Ile Pro Ile Pro Pro Ser Pro Leu Thr Pro
 100 105 110
 Pro Asp Leu Asn Leu Arg Ala Glu Glu Ile Asp Pro Val Tyr Phe Asp
 115 120 125
 Leu His Pro Gly Gln Gly His Thr Lys Pro Glu Tyr Tyr Tyr Pro Asn
 130 135 140
 Phe Leu Pro Ser Pro Phe Ser Ser Trp Asp Leu Arg Asp Met Ala Leu
 145 150 155 160
 Leu Leu Asn Ala Glu Asn Lys Thr Glu Ala Val Pro Arg Val Gly Gly
 165 170 175

Leu Leu Gly Lys Tyr Ile Asp Arg Leu Ile Gln Leu Glu Trp Leu Gln
 180 185 190
 Val Gln Thr Val Gln Cys Glu Lys Ala Lys Gly Gly Lys Ala Arg Pro
 195 200 205
 Pro Thr Ala Pro Gly Thr Ser Gly Ala Leu Lys Ser Pro Gly Arg Ser
 210 215 220
 Lys Leu Ile Ala Ser Ala Leu Ser Lys Pro Leu Pro His Gln Glu Gly
 225 230 235 240
 Ala Ser Lys Ser Gly Pro Ser Arg Lys Lys Ala Phe His His Glu Glu
 245 250 255
 Ile His Pro Ser His Tyr Ala Phe Glu Thr Ser Pro Arg Pro Ile Asp
 260 265 270
 Val Leu Gly Gly Thr Arg Phe Cys Ser Gln Arg Gln Thr Leu Glu Met
 275 280 285
 Arg Thr Glu Glu Lys Lys Lys Lys Ser Ser Lys Ser Thr Lys Leu Gln
 290 295 300
 Arg Trp Asp Leu Ser Gly Ser Gly Ser Ser Ser Lys Val Glu Thr Ser
 305 310 315 320
 Gly His Ile Arg Val Pro Lys Gln Ala Ala Val Ile Leu Asp Ser Ala
 325 330 335
 Asp Ser Cys Lys Ala Ser Lys Thr Gln Ala His Ala His Pro Arg Lys
 340 345 350
 Lys Gly Lys Ala Glu Ser Cys Gly His Ala Thr Val Ser Ser Glu Lys
 355 360 365
 Lys Leu Lys Thr Asn Gly Val Lys Gln Asn Thr Tyr Lys Leu Lys
 370 375 380

<210> 2839

<211> 164

<212> PRT

<213> Homo sapiens

<400> 2839

Met Lys Gly Cys Cys Arg Pro Val Gly Arg Thr Ser Ala Pro Pro Arg
 1 5 10 15

Pro Gly Pro Arg Pro Ser Ser Ser Gly Leu Ser Cys Cys Pro Cys Leu
 20 25 30
 Arg Gly Pro Thr Thr Arg Arg Thr Gly Ser Cys Ala Gln Pro Arg Ser
 35 40 45
 Pro Pro Ser Phe Arg Gly Pro Gly Leu Asp Pro Ala Glu Pro Gln Met
 50 55 60
 Cys Glu Gln Glu Arg Gln Ser Pro Asp Ala Arg Pro Ala Gly Ser Gly
 65 70 75 80
 Arg Glu Met Val Pro Ser Phe Cys Pro Glu Gly Glu Pro Cys Thr Glu
 85 90 95
 Gly Pro Leu Arg Ala Trp His Cys Leu Pro Asn Ser Pro Ser Ala Ser
 100 105 110
 Leu Pro Gly Trp Ala Met Arg Gly Leu Asp Arg Ile Ala Leu Val Pro
 115 120 125
 Ser Trp Gln Trp Val Trp Val Gly Ser Trp Gly Gln Gly Phe Pro Glu
 130 135 140
 Cys Arg Gln Leu Gly Leu His Leu Pro Arg Pro Pro Thr Gln Ala Gln
 145 150 155 160
 Ile Ser Arg Ala

<210> 2840

<211> 363

<212> PRT

<213> Homo sapiens

<400> 2840

Met Thr Leu Ala Ser Arg Leu Ser Thr Ala Ala Asn Ile Gly His Met
 1 5 10 15
 Asp Thr Pro Lys Glu Leu Trp Arg Met Ile Thr Gly Asn Met Ala Leu
 20 25 30
 Ile Gln Val Gln Ala Thr Val Val Gly Phe Leu Thr Ser Ile Ala Ala
 35 40 45
 Val Val Phe Gly Trp Ile Pro Asp Gly His Phe Ser Ile Pro His Ala
 50 55 60

Phe Leu Leu Cys Ala Ser Ser Val Ala Thr Ala Phe Ile Ala Ser Leu
 65 70 75 80
 Val Leu Gly Met Ile Met Ile Gly Val Ile Ile Gly Ser Arg Lys Ile
 85 90 95
 Gly Ile Asn Pro Asp Asn Val Ala Thr Pro Ile Ala Ala Ser Leu Gly
 100 105 110
 Asp Leu Ile Thr Leu Ala Leu Leu Ser Gly Ile Ser Trp Gly Leu Tyr
 115 120 125
 Leu Glu Leu Asn His Trp Arg Tyr Ile Tyr Pro Leu Val Cys Ala Phe
 130 135 140
 Phe Val Ala Leu Leu Pro Val Trp Val Val Leu Ala Arg Arg Ser Pro
 145 150 155 160
 Ala Thr Arg Glu Val Leu Tyr Ser Gly Trp Glu Pro Val Ile Ile Ala
 165 170 175
 Met Ala Ile Ser Ser Val Gly Gly Leu Ile Leu Asp Lys Thr Val Ser
 180 185 190
 Asp Pro Asn Phe Ala Gly Met Ala Val Phe Thr Pro Val Ile Asn Gly
 195 200 205
 Val Gly Gly Asn Leu Val Ala Val Gln Ala Ser Arg Ile Ser Thr Phe
 210 215 220
 Leu His Met Asn Gly Met Pro Gly Glu Asn Ser Glu Gln Ala Pro Arg
 225 230 235 240
 Arg Cys Pro Ser Pro Cys Thr Thr Phe Phe Ser Pro Asp Val Asn Ser
 245 250 255
 Arg Ser Ala Arg Val Leu Phe Leu Leu Val Val Pro Gly His Leu Val
 260 265 270
 Phe Leu Tyr Thr Ile Ser Cys Met Gln Gly Gly His Thr Thr Leu Thr
 275 280 285
 Leu Ile Phe Ile Ile Phe Tyr Met Thr Ala Ala Leu Leu Gln Val Leu
 290 295 300
 Ile Leu Leu Tyr Ile Ala Asp Trp Met Val His Trp Met Trp Gly Arg
 305 310 315 320
 Gly Leu Asp Pro Asp Asn Phe Ser Ile Pro Tyr Leu Thr Ala Leu Gly
 325 330 335
 Asp Leu Leu Gly Thr Gly Leu Leu Ala Leu Ser Phe His Val Leu Trp
 340 345 350

Leu Ile Gly Asp Arg Asp Thr Asp Val Gly Asp
 355 360

<210> 2841

<211> 138

<212> PRT

<213> Homo sapiens

<400> 2841

Met Arg Leu Trp Ser His Leu Leu Gly Arg Leu Arg His Glu Asn His
 1 5 10 15
 Leu Asp Leu Gly Gly Arg Gly Cys Ser Glu Leu Arg Ser Arg His Cys
 20 25 30
 Thr Leu Ala Trp Glu Thr Glu Arg Asp Ser Val Ser Lys Lys Lys Lys
 35 40 45
 Lys Lys Lys Val Ser Ile Pro Leu Phe Leu Trp Gly Phe Arg Val Thr
 50 55 60
 Tyr Trp Glu Asn Gly Glu Ile Leu Ala Leu Met Glu Ser Phe Pro Asp
 65 70 75 80
 Leu Ser Val Lys Ser Gln Thr Gln Gln Glu Leu Gln Phe Leu Ala Arg
 85 90 95
 Ala Leu Ala Phe Ala Lys Ala Gly Pro Arg Leu Trp Ser His Gly Phe
 100 105 110
 Ser His Lys Glu Arg Glu Arg Ile Cys Gly Gln Lys Ile Gly Lys Arg
 115 120 125
 Gly Arg Lys Ile Arg Phe Leu Arg Leu Gln
 130 135

<210> 2842

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2842

Met Lys Asn Leu Thr Leu Glu Arg Asn Pro Met Ser Val Ser Asn Val
 1 5 10 15
 Val Lys Pro Leu Phe Leu Ser Leu Pro Phe His Ile Met Lys Gly Leu
 20 25 30
 Thr Leu Glu Arg Asn Pro Met Ser Val Ser Asn Val Glu Lys Pro Ser
 35 40 45
 Asp Leu Pro His Thr Phe Glu Asn Met Val Gly Leu Thr Leu Glu Arg
 50 55 60
 Asn Pro Met Asn Val Ser Asn Val Gly Lys Pro Ser Asp Leu Ser Lys
 65 70 75 80
 Ile Val Glu Phe Met Lys Gly His Thr Leu Glu Arg Asn Pro Val Asn
 85 90 95
 Val Arg Asn Val Gly Lys Arg Ser Ile Ile Ser Leu Leu Cys Lys Tyr
 100 105 110
 Met Lys Gly Cys Thr Glu Glu Arg Ser Ser Val Asn Val Ser Ile Val
 115 120 125
 Gly Lys His Ser Tyr Leu Pro Arg Ser Phe Glu Tyr Met Gln Glu His
 130 135 140
 Thr Met Glu Arg Asn Pro Met Asn Val Lys Asn Ala Glu Lys His Ser
 145 150 155 160
 Ala Cys Leu Leu Pro Phe Ile Asp Met Lys Arg His Trp Lys Glu Thr
 165 170 175
 Leu

<210> 2843

<211> 127

<212> PRT

<213> Homo sapiens

<400> 2843

Met Leu Glu Phe Arg Ala Lys Val Leu Gln Val Phe Leu Arg Arg Thr
 1 5 10 15
 Leu Thr Cys Gln Trp Gln Ser His Thr Pro Gly Thr Tyr Leu Ala Glu
 20 25 30

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
| Glu | Cys | Leu | Phe | Arg | His | Ile | Asn | Ile | Phe | Ala | Tyr | Ser | Met | Leu | Val | | |
| 35 | | | | | | 40 | | | | | | 45 | | | | | |
| Asn | Lys | Pro | Phe | His | Lys | Gly | Ser | Leu | Arg | Thr | Ser | Asp | Phe | Lys | Gly | | |
| 50 | | | | | | 55 | | | | | | 60 | | | | | |
| Lys | Lys | Phe | Ile | Ile | Gln | Thr | Gly | Ser | Arg | Gly | Phe | Thr | Ile | Gln | Arg | | |
| 65 | | | | | | 70 | | | | | | 75 | | | | 80 | |
| Leu | Ser | Cys | Ile | Trp | Leu | Val | Leu | Trp | Ala | Trp | Ser | Val | Asp | His | Val | | |
| 85 | | | | | | 90 | | | | | | 95 | | | | | |
| Leu | Ile | Phe | Ser | Ile | Lys | Ile | Arg | Thr | Ala | Leu | Gly | Arg | Pro | Arg | Ile | | |
| 100 | | | | | | 105 | | | | | | 110 | | | | | |
| Tyr | Ser | Ile | Cys | Gly | Ser | Leu | Ala | Glu | Ser | Arg | Asp | Pro | Gln | Pro | | | |
| 115 | | | | | | 120 | | | | | | 125 | | | | | |

<210> 2844

<211> 187

<212> PRT

<213> Homo sapiens

<400> 2844

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Ala | Ala | Ser | Ser | Gln | Cys | Ile | Leu | Cys | Ser | Ser | Ile | Pro | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Pro | Gln | Gly | Leu | Pro | Ala | Glu | Pro | Leu | Gln | His | Pro | Ala | Arg | Trp |
| | | | 20 | | | | | | 25 | | | | | 30 | |
| Glu | Arg | Gly | His | Arg | Leu | Pro | Gly | Pro | Gly | Leu | Leu | Pro | Pro | Gly | Ala |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Thr | Gln | Cys | Asp | Leu | Glu | Arg | Lys | Arg | Thr | Gly | Arg | Asp | Arg | Gln | Glu |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Leu | Pro | Thr | Gln | Pro | Gly | Cys | Leu | Arg | Gly | Pro | Val | His | His | Glu | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Ala | Asp | Pro | Ala | Gly | His | Thr | Val | Pro | Ser | Arg | Gln | Val | Arg | Asp |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Met | Pro | Arg | Glu | Ala | Leu | His | Glu | Ser | Gln | Pro | Gly | Cys | Asp | Cys | Ala |
| | | | 100 | | | | | | 105 | | | | | 110 | |
| Leu | Pro | Ser | Ser | Leu | Asn | Ser | Thr | Tyr | Pro | Ile | Ser | Leu | Asn | Ser | Thr |
| | | | 115 | | | | | 120 | | | | | 125 | | |

Tyr Pro Ile Ser Leu Met Leu Pro Pro Pro Thr Val Thr Ala Pro Thr
 130 135 140
 Gly Pro Arg Gly Pro Ala Leu Arg Phe Arg Ser Glu Pro His Val His
 145 150 155 160
 Thr Asp Arg Pro Glu Arg Cys Leu Arg Cys His Leu His Leu Asp Ala
 165 170 175
 Leu Lys Trp Glu Glu Arg Cys Ser Arg Thr Thr
 180 185

<210> 2845

<211> 215

<212> PRT

<213> Homo sapiens

<400> 2845

Met Arg Gly Leu Arg Trp Arg Tyr Thr Arg Leu Pro Ser Gln Val Glu
 1 5 10 15
 Asp Thr Leu Ser Gly Glu Glu Gly Asn Glu Glu Glu Glu Glu Glu
 20 25 30
 Ala Ala Pro Asp Pro Ala Ala Ala Pro Glu Asp Pro Thr Val Pro Gln
 35 40 45
 Leu Thr Glu Ala Ser Gln Val Leu Ser Ala Ser Glu Ile Arg Gln Leu
 50 55 60
 Ser Phe His Phe Pro Pro Arg Val Thr Gly His Pro Trp Ser Leu Val
 65 70 75 80
 Phe Cys Thr Ser Arg Asp Gly Phe Ser Leu Gln Ser Leu Tyr Arg Arg
 85 90 95
 Met Glu Gly Cys Ser Gly Pro Val Leu Leu Val Leu Arg Asp Gln Asp
 100 105 110
 Gly Gln Ile Phe Gly Ala Phe Ser Ser Ser Ala Ile Arg Leu Ser Lys
 115 120 125
 Gly Phe Tyr Gly Thr Gly Glu Thr Phe Leu Phe Ser Phe Ser Pro Gln
 130 135 140
 Leu Lys Val Phe Lys Trp Thr Gly Ser Asn Ser Phe Phe Val Lys Gly

145 150 155 160
 Asp Leu Asp Ser Leu Met Met Gly Ser Gly Ser Gly Arg Phe Gly Leu
 165 170 175
 Trp Leu Asp Gly Asp Leu Phe Arg Gly Gly Ser Ser Pro Cys Pro Thr
 180 185 190
 Phe Asn Asn Glu Val Leu Ala Arg Gln Glu Gln Phe Cys Ile Gln Glu
 195 200 205
 Leu Glu Ala Trp Leu Leu Ser
 210 215

<210> 2846

<211> 477

<212> PRT

<213> Homo sapiens

<400> 2846

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15
 Val Leu Ser Gln Met Gln Leu Gln Glu Ser Gly Pro Gly Val Val Lys
 20 25 30
 Pro Ser Glu Thr Leu Ser Leu Lys Cys Ser Val Ser Gly Gly Ser Leu
 35 40 45
 Ser Gly Leu His Trp Val Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
 50 55 60
 Glu Trp Ile Gly His Thr Tyr Phe Gly Arg Pro Asn Thr Tyr Ser Pro
 65 70 75 80
 Ser Leu Arg Ser Arg Val Thr Ile Ser Val Asp Thr Ala Glu Asn Gln
 85 90 95
 Ile Ser Leu Glu Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
 100 105 110
 Phe Cys Val Gly Leu Phe Glu Gly Leu Gly Gly Arg Gly Phe Trp Gly
 115 120 125
 Gln Gly Val Leu Val Thr Val Ser Pro Ala Ser Pro Thr Ser Pro Lys
 130 135 140
 Val Phe Pro Leu Ser Leu Asp Ser Thr Pro Gln Asp Gly Asn Val Val

145 150 155 160
 Val Ala Cys Leu Val Gln Gly Phe Phe Pro Gln Glu Pro Leu Ser Val
 165 170 175
 Thr Trp Ser Glu Ser Gly Gln Asn Val Thr Ala Arg Asn Phe Pro Pro
 180 185 190
 Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr Ser Ser Gln Leu Thr
 195 200 205
 Leu Pro Ala Thr Gln Cys Pro Asp Gly Lys Ser Val Thr Cys His Val
 210 215 220
 Lys His Tyr Thr Asn Pro Ser Gln Asp Val Thr Val Pro Cys Pro Val
 225 230 235 240
 Pro Pro Pro Pro Pro Cys Cys His Pro Arg Leu Ser Leu His Arg Pro
 245 250 255
 Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr
 260 265 270
 Leu Thr Gly Leu Arg Asp Ala Ser Gly Ala Thr Phe Thr Trp Thr Pro
 275 280 285
 Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Glu Arg Asp Leu Cys
 290 295 300
 Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala Gln Pro Trp
 305 310 315 320
 Asn His Gly Glu Thr Phe Thr Cys Thr Ala Ala His Pro Glu Leu Lys
 325 330 335
 Thr Pro Leu Thr Ala Asn Ile Thr Lys Ser Gly Asn Thr Phe Arg Pro
 340 345 350
 Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn Glu
 355 360 365
 Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp Val
 370 375 380
 Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr
 385 390 395 400
 Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe
 405 410 415
 Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys Gly
 420 425 430
 Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala Phe

435 440 445
 Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val Asn
 450 455 460
 Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys Tyr
 465 470 475

<210> 2847

<211> 235

<212> PRT

<213> Homo sapiens

<400> 2847

Met Val Tyr Glu Val Pro Gly Gln Asp Leu Glu Val Asp Leu Tyr Asp
 1 5 10 15
 Glu Asp Thr Asp Arg Asp Asp Phe Leu Gly Ser Leu Gln Ile Cys Leu
 20 25 30
 Gly Asp Val Met Thr Asn Arg Val Val Asp Glu Trp Phe Val Leu Asn
 35 40 45
 Asp Thr Thr Ser Gly Arg Leu His Leu Arg Leu Glu Trp Leu Ser Leu
 50 55 60
 Leu Thr Asp Gln Glu Val Leu Thr Glu Asp His Gly Gly Leu Ser Thr
 65 70 75 80
 Ala Ile Leu Val Val Phe Leu Glu Ser Ala Cys Asn Leu Pro Arg Asn
 85 90 95
 Pro Phe Asp Tyr Leu Asn Gly Glu Tyr Arg Ala Lys Lys Leu Ser Arg
 100 105 110
 Phe Ala Arg Asn Lys Val Ser Lys Asp Pro Ser Ser Tyr Val Lys Leu
 115 120 125
 Ser Val Gly Lys Lys Thr His Thr Ser Lys Thr Cys Pro His Asn Lys
 130 135 140
 Asp Pro Val Trp Ser Gln Val Phe Ser Phe Phe Val His Asn Val Ala
 145 150 155 160
 Thr Glu Arg Leu His Leu Lys Val Leu Asp Asp Asp Gln Glu Cys Ala
 165 170 175
 Leu Gly Met Leu Glu Val Pro Leu Cys Gln Ile Leu Pro Tyr Ala Asp

180 185 190
 Leu Thr Leu Glu Gln Arg Phe Gln Leu Asp His Ser Gly Leu Asp Ser
 195 200 205
 Leu Ile Ser Met Arg Leu Val Leu Arg Phe Leu Gln Gly Arg Asn Glu
 210 215 220
 Ser Trp Gly Ala His Thr Gln Asp Leu Lys Pro
 225 230 235

<210> 2848

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2848

Met Leu Arg Ala Ala Leu Pro Ala Leu Leu Leu Pro Leu Leu Gly Leu
 1 5 10 15
 Ala Ala Ala Ala Val Ala Gly Lys Pro Leu Arg Ser Pro Ser Pro Gly
 20 25 30
 Pro Cys Ala Thr Ala Phe Ala Pro Phe Pro Thr His Ala Leu Arg Pro
 35 40 45
 Arg Ala Pro Glu Gly Gly Pro Gln Thr Gln His Pro Ala Gly His Pro
 50 55 60
 Ala Leu Pro Cys Thr Pro Val Pro Arg Gly Ser Trp Leu Arg Val Thr
 65 70 75 80
 Ser His Pro Pro Ala Leu Gly Glu Gly Arg Trp Pro Arg Ile Arg Glu
 85 90 95
 Gly Ser Val Phe Leu Gly Val His Ile Leu Thr Ala Asp Pro Thr Pro
 100 105 110
 Arg Gly Gly Asn Pro Gln Ile Arg Pro Val Gly Arg Arg Thr Glu Gly
 115 120 125
 Leu Gly Val Ala Arg Arg Ala Pro Phe Gln Gly Asn Phe Gly Leu Lys
 130 135 140

<210> 2849

<211> 629

<212> PRT

<213> Homo sapiens

<400> 2849

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Met Leu Arg Met Val Ser Ala Val Leu Gln Phe Gly Asn Ile Ala Leu
  1             5             10            15
Lys Arg Glu Arg Asn Thr Asp Gln Ala Thr Met Pro Asp Asn Thr Ala
      20             25            30
Ala Gln Lys Leu Cys Arg Leu Leu Gly Leu Gly Val Thr Asp Phe Ser
      35             40            45
Arg Ala Leu Leu Thr Pro Arg Ile Lys Val Gly Arg Asp Tyr Val Gln
      50             55            60
Lys Ala Gln Thr Lys Glu Gln Ala Asp Phe Ala Leu Glu Ala Leu Ala
      65             70            75            80
Lys Ala Thr Tyr Glu Arg Leu Phe Arg Trp Leu Val Leu Arg Leu Asn
      85             90            95
Arg Ala Leu Asp Arg Ser Pro Arg Gln Gly Ala Ser Phe Leu Gly Ile
      100            105            110
Leu Asp Ile Ala Gly Phe Glu Ile Phe Gln Leu Asn Ser Phe Glu Gln
      115            120            125
Leu Cys Ile Asn Tyr Ala Asn Glu Lys Leu Gln Gln Leu Phe Asn His
      130            135            140
Thr Met Phe Val Leu Glu Gln Glu Glu Tyr Gln Arg Glu Gly Ile Pro
      145            150            155            160
Trp Thr Phe Leu Asp Phe Gly Leu Asp Leu Gln Pro Cys Ile Asp Leu
      165            170            175
Ile Glu Arg Pro Ala Asn Pro Pro Gly Leu Leu Ala Leu Leu Asp Glu
      180            185            190
Glu Cys Trp Phe Pro Lys Ala Thr Asp Lys Ser Phe Val Glu Lys Val
      195            200            205
Ala Gln Glu Gln Gly Gly His Pro Lys Phe Gln Arg Pro Arg His Leu
      210            215            220
Arg Asp Gln Ala Asp Phe Ser Val Leu His Tyr Ala Gly Lys Val Asp
      225            230            235            240
Tyr Lys Ala Asn Glu Trp Leu Met Lys Asn Met Asp Pro Leu Asn Asp

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| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 245 | | 250 | | 255 |
| Asn Val Ala Ala Leu Leu His Gln Ser Thr Asp Arg Leu Thr Ala Glu | | | | | |
| | 260 | | 265 | | 270 |
| Ile Trp Lys Asp Val Glu Gly Ile Val Gly Leu Glu Gln Val Ser Ser | | | | | |
| | 275 | | 280 | | 285 |
| Leu Gly Asp Gly Pro Pro Gly Gly Arg Pro Arg Arg Gly Met Phe Arg | | | | | |
| | 290 | | 295 | | 300 |
| Thr Val Gly Gln Leu Tyr Lys Glu Ser Leu Ser Arg Leu Met Ala Thr | | | | | |
| 305 | | 310 | | 315 | 320 |
| Leu Ser Asn Thr Asn Pro Ser Phe Val Arg Cys Ile Val Pro Asn His | | | | | |
| | 325 | | 330 | | 335 |
| Glu Lys Arg Ala Gly Lys Leu Glu Pro Arg Leu Val Leu Asp Gln Leu | | | | | |
| | 340 | | 345 | | 350 |
| Arg Cys Asn Gly Val Leu Glu Gly Ile Arg Ile Cys Arg Gln Gly Phe | | | | | |
| | 355 | | 360 | | 365 |
| Pro Asn Arg Ile Leu Phe Gln Glu Phe Arg Gln Arg Tyr Glu Ile Leu | | | | | |
| | 370 | | 375 | | 380 |
| Thr Pro Asn Ala Ile Pro Lys Gly Phe Met Asp Gly Lys Gln Ala Cys | | | | | |
| 385 | | 390 | | 395 | 400 |
| Glu Lys Met Ile Gln Ala Leu Glu Leu Asp Pro Asn Leu Tyr Arg Val | | | | | |
| | 405 | | 410 | | 415 |
| Gly Gln Ser Lys Ile Phe Phe Arg Ala Gly Val Leu Ala Gln Leu Glu | | | | | |
| | 420 | | 425 | | 430 |
| Glu Glu Arg Asp Leu Lys Val Thr Asp Ile Ile Val Ser Phe Gln Ala | | | | | |
| | 435 | | 440 | | 445 |
| Ala Ala Arg Gly Tyr Leu Ala Arg Arg Ala Phe Gln Lys Arg Gln Gln | | | | | |
| | 450 | | 455 | | 460 |
| Gln Gln Ser Ala Leu Arg Val Met Gln Arg Asn Cys Ala Ala Tyr Leu | | | | | |
| 465 | | 470 | | 475 | 480 |
| Lys Leu Arg His Trp Gln Trp Trp Arg Leu Phe Thr Lys Val Lys Pro | | | | | |
| | 485 | | 490 | | 495 |
| Leu Leu Gln Val Thr Arg Gln Asp Glu Val Leu Gln Ala Arg Ala Gln | | | | | |
| | 500 | | 505 | | 510 |
| Glu Leu Gln Lys Val Gln Glu Leu Gln Gln Gln Ser Ala Arg Glu Val | | | | | |
| | 515 | | 520 | | 525 |
| Gly Glu Leu Gln Gly Arg Val Ala Gln Leu Glu Glu Glu Arg Ala Arg | | | | | |

530 535 540
 Leu Ala Glu Gln Leu Arg Ala Glu Ala Glu Leu Cys Ala Glu Ala Glu
 545 550 555 560
 Glu Thr Arg Gly Arg Leu Ala Ala Arg Lys Gln Glu Leu Glu Leu Val
 565 570 575
 Val Ser Glu Leu Glu Ala Arg Val Gly Glu Glu Glu Glu Cys Ser Arg
 580 585 590
 Gln Met Gln Thr Glu Lys Lys Arg Leu Gln Gln His Ile Gln Glu Leu
 595 600 605
 Glu Ala His Leu Glu Ala Glu Glu Gly Ala Arg Gln Lys Leu Gln Leu
 610 615 620
 Glu Lys Val Thr Thr
 625

<210> 2850

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2850

Met Gly Ser Asp Cys Glu Ser His Lys His Ser Pro Leu Asn Pro Asn
 1 5 10 15
 Ile Thr Gln Leu Pro Phe Ser Trp Val Pro Lys Met Pro Met Asp Thr
 20 25 30
 Ser Phe Leu Pro Tyr Val Lys Val Thr Glu Val Glu Gly Lys Glu Phe
 35 40 45
 Gly Ile Glu Asn Asp Lys Asp Leu Arg Arg Leu Pro Leu Lys Tyr Leu
 50 55 60
 Pro Leu Glu Met Tyr Lys Asn Gly Pro Gly Thr Val Ala His Thr Cys
 65 70 75 80
 Asn Pro Asn Thr Leu Gly Gly Arg Gly Arg Trp Ile Thr Arg Ser Gly
 85 90 95
 Glu Gln Asp His Pro Gly
 100

<210> 2851

<211> 494

<212> PRT

<213> Homo sapiens

<400> 2851

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Met Glu Leu Ser Leu Ser Trp Phe Phe Leu Leu Thr Ile Ile Gln Gly
  1             5             10             15
Val Gln Cys Glu Gln Gln Leu Val Gln Ser Ala Gly Gly Leu Val Gln
          20             25             30
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe
          35             40             45
Glu Asn His Ala Met His Trp Val Arg Gln Val Pro Gly Lys Arg Leu
          50             55             60
Glu Trp Val Ser Gly Ile Asp Trp Asn Gly Gly Asp Ala Gly Tyr Ala
          65             70             75             80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys
          85             90             95
Ser Leu Tyr Leu Gln Met Ser Ser Leu Arg Pro Asp Asp Ser Ala Phe
          100            105            110
Tyr Phe Cys Ala Arg Asp Thr Val Ser Gly Trp Met Asp Trp Ser Phe
          115            120            125
Asp Leu Trp Gly Arg Gly Thr Leu Val Ser Val Ser Ser Ala Ser Pro
          130            135            140
Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr Gln Pro Asp
          145            150            155            160
Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe Pro Gln Glu
          165            170            175
Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val Thr Ala Arg
          180            185            190
Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr Ser
          195            200            205
Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly Lys Ser Val
          210            215            220
Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp Val Thr Val

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225 230 235 240
 Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser Thr Pro
 245 250 255
 Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser Leu His Arg
 260 265 270
 Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys
 275 280 285
 Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe Thr Trp Thr
 290 295 300
 Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp Arg Asp Leu
 305 310 315 320
 Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala Glu Pro
 325 330 335
 Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr Pro Glu Ser
 340 345 350
 Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn Thr Phe Arg
 355 360 365
 Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn
 370 375 380
 Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp
 385 390 395 400
 Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys
 405 410 415
 Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr
 420 425 430
 Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys
 435 440 445
 Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala
 450 455 460
 Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val
 465 470 475 480
 Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys Tyr
 485 490

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2852

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Met Arg Thr Pro Val Val Met Thr Leu Gly Met Val Leu Ala Pro Cys
  1             5             10             15
Gly Leu Leu Leu Asn Leu Thr Gly Thr Pro Val Thr Val Gln Val Ser
      20             25             30
Tyr Ser Leu Val Leu Gly Tyr Leu Gly Ser Cys Leu Leu Leu Leu Gly
      35             40             45
Gly Phe Ser Leu Ala Leu Ser Phe Ala Pro Trp Cys Asp Glu Arg Cys
      50             55             60
Arg Arg Arg Arg Lys Gly Pro Ser Ala Gly Pro Arg Arg Ser Ser Val
      65             70             75             80
Ser Thr Ile Gln Val Glu Trp Pro Glu Pro Asp Leu Ala Pro Ala Ile
      85             90             95
Lys Tyr Tyr Ser Asp Gly Gln His Arg Pro Pro Pro Ala Gln His Arg
      100            105            110
Lys Pro Lys Pro Lys Pro Lys Val Gly Phe Pro Met Pro Arg Pro Arg
      115            120            125
Pro Lys Ala Tyr Thr Asn Ser Val Asp Val Leu Asp Gly Glu Gly Trp
      130            135            140
Glu Ser Gln Asp Ala Pro Ser Cys Ser Thr His Pro Cys Asp Ser Ser
      145            150            155            160
Leu Pro Cys Asp Ser Asp Leu
      165

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<210> 2853

<211> 176

<212> PRT

<213> Homo sapiens

<400> 2853

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Met Trp Arg Gly Ile Asp Ser Ile Tyr Pro Tyr Glu Ser Trp Ser Leu

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 5 | 10 | 15 | | | | | | | | | | | | |
| Thr | Leu | Leu | Ser | Arg | Leu | Glu | Phe | Ser | Gly | Arg | Ile | Met | Ala | Tyr | Cys |
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Ser | Leu | Glu | Leu | Leu | Gly | Ser | Asn | His | Pro | Pro | Thr | Ser | Ala | Phe | Cys |
| | 35 | | 40 | | 45 | | | | | | | | | | |
| Cys | Arg | Arg | Ile | Phe | Cys | Leu | Leu | Glu | Pro | Ala | Val | Ser | Thr | Gln | Glu |
| | 50 | | 55 | | 60 | | | | | | | | | | |
| Trp | Lys | Phe | Ser | Gln | Lys | Met | Gln | His | Thr | Val | Lys | Ile | Ser | Gly | Asp |
| 65 | | | 70 | | 75 | | | | | | | | | | 80 |
| Ala | Ser | Thr | Lys | Ala | His | Arg | Gly | Val | Lys | Ser | Val | Ile | Thr | Phe | Phe |
| | | | 85 | | 90 | | | | | | | | | | 95 |
| Leu | Leu | Tyr | Ala | Ile | Phe | Ser | Leu | Ser | Phe | Phe | Ile | Ser | Val | Trp | Thr |
| | 100 | | 105 | | 110 | | | | | | | | | | |
| Ser | Glu | Arg | Leu | Glu | Glu | Asn | Leu | Ile | Ile | Leu | Ser | Gln | Val | Met | Gly |
| | 115 | | 120 | | 125 | | | | | | | | | | |
| Met | Ala | Tyr | Pro | Ser | Cys | His | Ser | Cys | Val | Leu | Ile | Leu | Gly | Asn | Lys |
| | 130 | | 135 | | 140 | | | | | | | | | | |
| Lys | Leu | Arg | Gln | Ala | Ser | Leu | Ser | Val | Leu | Leu | Trp | Leu | Arg | Tyr | Met |
| 145 | | | 150 | | 155 | | | | | | | | | | 160 |
| Phe | Lys | Asp | Gly | Glu | Pro | Ser | Gly | His | Lys | Glu | Phe | Arg | Glu | Ser | Ser |
| | | | 165 | | 170 | | | | | | | | | | 175 |

<210> 2854

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2854

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | His | Glu | Pro | Cys | Gly | Pro | Cys | Asp | Gly | Pro | Ser | Val | Thr | Leu |
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Gln | His | Gly | Ser | Cys | Pro | Leu | Gly | Leu | His | Pro | Ser | Thr | Gly | Thr | Pro |
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Ala | Met | Ala | Ile | Arg | Gly | Thr | Ala | Arg | Gly | Thr | Cys | Trp | Met | Ser | Pro |
| | 35 | | 40 | | 45 | | | | | | | | | | |
| Ser | Gln | Pro | Phe | Pro | Ser | Pro | Pro | Gly | Leu | Thr | Pro | Ala | Pro | Glu | Ala |

50 55 60
 Leu Pro Pro Thr Trp Pro Lys Ala Pro Leu Ser Leu Arg Leu Arg Phe
 65 70 75 80
 Pro Phe Val Phe Gly Asn Pro Val Gly Ser His Leu Ala Ser Pro Trp
 85 90 95
 His Ser Trp Gly Asp
 100

<210> 2855

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2855

Met Phe His Cys Phe Ile Trp Leu Ser Leu His Gln Tyr Gln Ile Phe
 1 5 10 15
 Leu Ile Ile Val Ala Leu His Cys Ser Gly Ile Gln Trp Ser Lys Ser
 20 25 30
 Ser Tyr Leu Lys Ser Gln Thr Pro Cys Gln Ile Pro Met Cys His Phe
 35 40 45
 Ser Gly Pro Thr Ile Gly Ser Tyr Lys Gly Arg Thr Pro His Glu Gly
 50 55 60
 Lys Leu Pro Ser Pro Cys Gln Thr Trp Gly Thr Ala Asn Ala Leu Gln
 65 70 75 80
 Ser Leu Lys Lys Val Ala Val Lys Asp Pro Asp Pro Arg Pro Ser His
 85 90 95
 Ala Leu Arg His Ile Cys Ile Pro Ser Pro Ser Thr Ser Val
 100 105 110

<210> 2856

<211> 183

<212> PRT

<213> Homo sapiens

<400> 2856

Met Trp Ser Gly Arg Asp Thr Cys Pro Leu Lys Asn Ser Ala Leu Asp
 1 5 10 15
 Ser Lys Thr Ser Leu Ala Pro Ala Arg Ala Pro Thr Gly Ser Ala Glu
 20 25 30
 Gly Ser His Cys Pro Leu Ser Gly Tyr Leu Leu Pro Pro Ala Ser Gln
 35 40 45
 Leu Trp Arg Arg Arg Met Leu Arg Arg Arg Arg Arg Ser Leu Pro Ser
 50 55 60
 Trp Ser Ser Trp Gly Val Gln Cys Arg Leu Gly Ser Gln His Pro Gly
 65 70 75 80
 Ala Cys Ser Lys Pro Gly Gln Val Thr Gln Asp Ala Arg Arg Arg Pro
 85 90 95
 Glu Gly Leu Ala Gly Glu Gly Gly Pro Gln Glu Ala Ala Gln Glu Ile
 100 105 110
 Arg Leu Leu Leu Leu Ile Thr Cys Pro Val Leu Gly Arg Met Asp Thr
 115 120 125
 His Gly Val Ser Cys Pro Ser Ala Pro Val Leu Cys Ser Trp Thr Ala
 130 135 140
 Thr Thr Gln Arg Thr Ser Leu Glu Val Gln Glu Asn Pro Ser Gln Leu
 145 150 155 160
 Arg Thr Arg Ile Pro Glu Gln Gly Arg Ile Thr Ser Ala Phe His Thr
 165 170 175
 Pro Lys Glu Gly Phe Ala Glu
 180

<210> 2857

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2857

Met Ile His Ala Arg His Leu Gly Leu Lys Arg Thr Val Thr Ser Ser
 1 5 10 15
 Glu Ala Leu Leu Tyr Ser Ser Asp Gln Val Ala Asn Thr Ser Leu His

20 25 30
 Thr Arg Ala Gln Asn Gln Lys Gln Ala Gly Ile Val Lys Leu Gly Gln
 35 40 45
 Trp His Ala Pro Val Ile Pro Ala Thr Trp Glu Ala Glu Val Gly Gly
 50 55 60
 Ser Leu Glu Pro Arg Ser Ser Lys Pro Met Arg Phe His Leu Gln Lys
 65 70 75 80
 Glu Arg Lys Lys Gln Glu Thr Gly Cys Ser Leu Val Cys Leu Pro Pro
 85 90 95
 Gln His Arg Thr Leu Leu Ile Thr Gly
 100 105

<210> 2858

<211> 260

<212> PRT

<213> Homo sapiens

<400> 2858

Met Pro Arg Gln Phe Gln Asp Thr Gly Phe Ser Arg Pro Gly Leu Gly
 1 5 10 15
 Gln Pro Arg Arg Cys Asp Pro Glu Pro Arg Lys Ser Asp Gln Gln Leu
 20 25 30
 Asp Cys Ala Leu Asp Leu Met Arg Arg Leu Pro Pro Gln Gln Ile Glu
 35 40 45
 Lys Asn Leu Ser Asp Leu Ile Asp Leu Val Pro Ser Leu Cys Glu Asp
 50 55 60
 Leu Leu Ser Ser Val Asp Gln Pro Leu Lys Ile Ala Arg Asp Lys Val
 65 70 75 80
 Val Gly Lys Asp Tyr Leu Leu Cys Asp Tyr Asn Arg Asp Gly Asp Ser
 85 90 95
 Tyr Arg Ser Pro Trp Ser Asn Lys Tyr Asp Pro Pro Leu Glu Asp Gly
 100 105 110
 Ala Met Pro Ser Ala Arg Leu Arg Lys Leu Glu Val Glu Ala Asn Asn
 115 120 125
 Ala Phe Asp Gln Tyr Arg Asp Leu Tyr Phe Glu Gly Gly Val Ser Ser

130 135 140
 Val Tyr Leu Trp Asp Leu Asp His Gly Phe Ala Gly Val Ile Leu Ile
 145 150 155 160
 Lys Lys Ala Gly Asp Gly Ser Lys Lys Ile Lys Gly Cys Trp Asp Ser
 165 170 175
 Ile His Val Val Glu Val Gln Glu Lys Ser Ser Gly Arg Thr Ala His
 180 185 190
 Tyr Lys Leu Thr Ser Thr Val Met Leu Trp Leu Gln Thr Asn Lys Ser
 195 200 205
 Gly Ser Gly Thr Met Asn Leu Gly Gly Ser Leu Thr Arg Gln Met Glu
 210 215 220
 Lys Asp Glu Thr Val Ser Asp Cys Ser Pro His Ile Ala Asn Ile Gly
 225 230 235 240
 Arg Leu Val Glu Val Cys Ala Asp Phe Cys Arg Gln Ile Lys Thr Arg
 245 250 255
 Ser Ser Glu Glu
 260

<210> 2859

<211> 710

<212> PRT

<213> Homo sapiens

<400> 2859

Met Val Met Ala Cys Arg Val Val Asn Lys Arg Arg His Met Gly Leu
 1 5 10 15
 Gln Gln Leu Ser Ser Phe Ala Glu Thr Gly Arg Thr Phe Leu Gly Pro
 20 25 30
 Leu Lys Ser Ser Lys Phe Ile Ile Asp Glu Glu Cys His Glu Ser Val
 35 40 45
 Leu Ile Ser Ser Thr Val Arg Leu Leu Glu Ser Leu Asp Leu Thr Ser
 50 55 60
 Ala Val Gly Gln Leu Leu Asn Glu Ala Val Gln Ala Gln Asn Asn Thr
 65 70 75 80
 Tyr Arg Thr Gly Ile Ser Thr Leu Leu Phe Leu Val Gly Ala Trp Ser

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Ser Ala Val Glu Glu Cys Leu His Leu Gly Val Pro Ile Ser Ile Ile | | | |
| | 100 | 105 | 110 |
| Val Ser Val Met Ser Glu Gly Leu Asn Phe Cys Ser Glu Glu Val Val | | | |
| | 115 | 120 | 125 |
| Ser Leu His Val Pro Val His Asn Ile Phe Asp Cys Met Asp Ser Thr | | | |
| | 130 | 135 | 140 |
| Lys Thr Phe Ser Gln Leu Glu Thr Phe Ser Val Ser Leu Cys Pro Phe | | | |
| 145 | 150 | 155 | 160 |
| Leu Gln Val Pro Ser Asp Thr Asp Leu Ile Glu Glu Leu His Gly Leu | | | |
| | 165 | 170 | 175 |
| Lys Asp Val Ala Ser Gln Thr Leu Thr Ile Ser Asn Leu Ser Gly Arg | | | |
| | 180 | 185 | 190 |
| Pro Leu Lys Ser Tyr Glu Leu Phe Lys Pro Gln Thr Lys Val Glu Ala | | | |
| | 195 | 200 | 205 |
| Asp Asn Asn Thr Ser Arg Thr Leu Lys Asn Ser Leu Leu Ala Asp Thr | | | |
| | 210 | 215 | 220 |
| Cys Cys Arg Gln Ser Ile Leu Ile His Ser Arg His Phe Asn Arg Thr | | | |
| 225 | 230 | 235 | 240 |
| Asp Asn Thr Glu Gly Val Ser Lys Pro Asp Gly Phe Gln Glu His Val | | | |
| | 245 | 250 | 255 |
| Thr Ala Thr His Lys Thr Tyr Arg Cys Asn Asp Leu Val Glu Leu Ala | | | |
| | 260 | 265 | 270 |
| Val Gly Leu Ser His Gly Asp His Ser Ser Met Lys Leu Val Glu Glu | | | |
| | 275 | 280 | 285 |
| Ala Val Gln Leu Gln Tyr Gln Asn Ala Cys Val Gln Gln Gly Asn Cys | | | |
| | 290 | 295 | 300 |
| Thr Lys Pro Phe Met Phe Asp Ile Ser Arg Ile Phe Thr Cys Cys Leu | | | |
| 305 | 310 | 315 | 320 |
| Pro Gly Leu Pro Glu Thr Ser Ser Cys Val Cys Pro Gly Tyr Ile Thr | | | |
| | 325 | 330 | 335 |
| Val Val Ser Val Ser Asn Asn Pro Val Ile Lys Glu Leu Gln Asn Gln | | | |
| | 340 | 345 | 350 |
| Pro Val Arg Ile Val Leu Ile Glu Gly Asp Leu Thr Glu Asn Tyr Arg | | | |
| | 355 | 360 | 365 |
| His Leu Gly Phe Asn Lys Ser Ala Asn Ile Lys Thr Val Leu Asp Ser | | | |

| | | | |
|---|-----|-----|-----|
| 370 | 375 | 380 | |
| Met Gln Leu Gln Glu Asp Ser Ser Glu Glu Leu Trp Ala Asn His Val | | | |
| 385 | 390 | 395 | 400 |
| Leu Gln Val Leu Ile Gln Phe Lys Val Asn Leu Val Leu Val Gln Gly | | | |
| | 405 | 410 | 415 |
| Asn Val Ser Glu Arg Leu Ile Glu Lys Cys Ile Asn Ser Lys Arg Leu | | | |
| | 420 | 425 | 430 |
| Val Ile Gly Ser Val Asn Gly Ser Val Met Gln Ala Phe Ala Glu Ala | | | |
| | 435 | 440 | 445 |
| Ala Gly Ala Val Gln Val Ala Tyr Ile Thr Gln Val Asn Glu Asp Cys | | | |
| 450 | 455 | 460 | |
| Val Gly Asp Gly Val Cys Val Thr Phe Trp Arg Ser Ser Pro Leu Asp | | | |
| 465 | 470 | 475 | 480 |
| Val Val Asp Arg Asn Asn Arg Ile Ala Ile Leu Leu Lys Thr Glu Gly | | | |
| | 485 | 490 | 495 |
| Ile Asn Leu Val Thr Ala Val Leu Thr Asn Pro Val Thr Ala Gln Met | | | |
| | 500 | 505 | 510 |
| Gln Ile Lys Glu Asp Arg Phe Trp Thr Cys Ala Tyr Arg Leu Tyr Tyr | | | |
| | 515 | 520 | 525 |
| Ala Leu Lys Glu Glu Lys Val Phe Leu Gly Gly Gly Ala Val Glu Phe | | | |
| | 530 | 535 | 540 |
| Leu Cys Leu Ser Cys Leu His Ile Leu Ala Glu Gln Ser Leu Lys Lys | | | |
| 545 | 550 | 555 | 560 |
| Glu Asn His Ala Cys Ser Gly Trp Leu His Asn Thr Ser Ser Trp Leu | | | |
| | 565 | 570 | 575 |
| Ala Ser Ser Leu Ala Ile Tyr Arg Pro Thr Val Leu Lys Phe Leu Ala | | | |
| | 580 | 585 | 590 |
| Asn Gly Trp Gln Lys Tyr Leu Ser Thr Leu Leu Tyr Asn Thr Ala Asn | | | |
| | 595 | 600 | 605 |
| Tyr Ser Ser Glu Phe Glu Ala Ser Thr Tyr Ile Gln His His Leu Gln | | | |
| | 610 | 615 | 620 |
| Asn Ala Thr Asp Ser Gly Ser Pro Ser Ser Tyr Ile Leu Asn Glu Tyr | | | |
| 625 | 630 | 635 | 640 |
| Ser Lys Leu Asn Ser Arg Ile Phe Asn Ser Asp Ile Ser Asn Lys Leu | | | |
| | 645 | 650 | 655 |

Glu Gln Ile Pro Arg Val Tyr Asp Val Val Thr Pro Lys Ile Glu Ala
 660 665 670
 Trp Arg Arg Ala Leu Asp Leu Val Leu Leu Val Leu Gln Thr Asp Ser
 675 680 685
 Glu Ile Ile Thr Gly His Gly His Thr Gln Ile Asn Ser Gln Glu Leu
 690 695 700
 Thr Gly Phe Leu Phe Leu
 705 710

<210> 2860

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2860

Met Thr Ser His Gly Ala Phe Thr Ser Gln Val Tyr Cys Gly Ile Thr
 1 5 10 15
 Tyr Thr His Lys Ala His Pro Phe Ser Met His Ser Arg Arg Leu Gly
 20 25 30
 Lys Cys Pro Glu Trp Gly Thr Ser Ala Pro Thr Glu Ala Ala His Ile
 35 40 45
 Leu Pro Leu Cys Ser Gln Ala Pro Ser Arg Pro Pro Thr Thr Thr Cys
 50 55 60
 Leu Ser Ser Val Leu Gln Leu Cys Val Leu Gln Asn Cys Pro Val Ser
 65 70 75 80
 Asp Ser His Arg Met Glu Thr Phe Val Ser Gly Phe Leu His Phe Ala
 85 90 95
 Ala Gly Phe Ala Gly Pro Val Trp Trp His Gln Arg Pro Ala Leu Gly
 100 105 110
 Ala Ala Glu Leu
 115

<210> 2861

<211> 186

<212> PRT

<213> Homo sapiens

<400> 2861

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Met Thr Thr Glu Met Gly Glu Ala Arg His Val Arg Thr Leu Ser Ser
  1             5             10             15
Glu Arg Cys Pro Arg Leu Leu Ala Ser Cys Ala Val Val Leu Trp Val
      20             25             30
Cys His Thr Leu Pro Cys Phe Cys Ser His Trp Glu Ala His Ser Trp
      35             40             45
Leu Thr Ser Pro Ser Gln Gly Pro Thr Trp Glu Pro Gly Ser Leu Asp
      50             55             60
Cys Pro Gly His Arg Phe Gln Gly Pro Pro Leu Leu Ser Ser Glu Pro
      65             70             75             80
Arg Gly Ile Leu Leu Leu Lys Asn Thr Tyr Gly Ile Pro Ile Cys Ala
      85             90             95
Gly Gln Cys Pro Lys His Leu Asp Tyr Ile Arg Glu Glu His Arg Pro
      100            105            110
His Pro Cys Pro His Ala Ala Tyr Val Phe Trp Arg Lys Val Glu Thr
      115            120            125
Gln Val Leu Gly Phe Arg Ala Pro Pro Ala Gly Gly Cys Ala Val Arg
      130            135            140
Ser Gly Arg Glu Gly Lys Cys Thr Ala Ala Cys Glu Pro Tyr Gln Pro
      145            150            155            160
Arg Arg Met Pro Leu Pro Leu Ser Thr Thr Leu Ala Ser Cys Ile Pro
      165            170            175
Ser Pro His Val Pro Pro Thr Phe Lys Glu
      180            185

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<210> 2862

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2862

Met Tyr Arg Pro Val Met Ala Ser Cys Thr Ser Val Ser Leu Trp Met
 1 5 10 15
 Ile Ala Leu Leu Val Phe Gly Val Leu Ala Ile Phe Gly Ile Ala Ile
 20 25 30
 Gly Leu Leu Val His Phe Leu Ala Val Ala Asn Arg Ile Tyr Phe Tyr
 35 40 45
 Gln Gly Ser Phe Lys Met Leu Asp Ile Pro Tyr Asn Ser Asn Tyr Glu
 50 55 60
 Arg Glu Thr Ser Pro Glu Asn Asn Tyr Leu Ser Gln Ile Leu Glu Thr
 65 70 75 80
 Arg Trp Leu Met His Phe Lys Val Leu Ala Phe Thr Asp Asn Ile Ser
 85 90 95
 Phe Leu Lys Ser Ser His Trp Cys Lys
 100 105

<210> 2863

<211> 557

<212> PRT

<213> Homo sapiens

<400> 2863

Met Ser Glu Ala Ala Ser Gln Gly Leu Arg Ala Ala Ala Arg Ser Val
 1 5 10 15
 Trp Ala Gly Thr Asp Arg Arg Gly Cys Arg His Arg Arg Pro Val Pro
 20 25 30
 Leu Cys Ser Gly Thr Ala Leu Ser Gln Cys Pro Arg Phe Pro Arg Arg
 35 40 45
 Leu His Ala Ala Arg Leu Gly Asn Met Leu Gly Val Leu Val Leu Gly
 50 55 60
 Ala Leu Ala Leu Ala Gly Leu Gly Phe Pro Ala Pro Gly Cys Gly Asp
 65 70 75 80
 Pro Lys Arg Leu Gly Pro Leu Arg Gly Phe Gln Trp Val Thr Gly Asp
 85 90 95
 Asn Asn Thr Ser Tyr Ser Arg Trp Ala Arg Leu Asp Leu Asn Gly Ala
 100 105 110

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Cys | Gly | Pro | Leu | Cys | Val | Ala | Val | Ser | Ala | Ala | Glu | Ala | Thr |
| 115 | | | | | | 120 | | | | | | 125 | | | |
| Val | Pro | Ser | Glu | Pro | Ile | Trp | Glu | Glu | Gln | Gln | Cys | Glu | Val | Lys | Ala |
| 130 | | | | | | 135 | | | | | | 140 | | | |
| Asp | Gly | Phe | Leu | Cys | Glu | Phe | His | Phe | Pro | Ala | Thr | Cys | Arg | Pro | Leu |
| 145 | | | | | | 150 | | | | | | 155 | | | |
| Ala | Val | Glu | Pro | Gly | Ala | Ala | Ala | Ala | Ala | Val | Ser | Ile | Thr | Tyr | Gly |
| | | | 165 | | | | | | 170 | | | | | | |
| Thr | Pro | Phe | Ala | Ala | Arg | Gly | Ala | Asp | Phe | Gln | Ala | Leu | Pro | Val | Gly |
| | | | 180 | | | | | | 185 | | | | | | |
| Ser | Ser | Ala | Ala | Val | Ala | Pro | Leu | Gly | Leu | Gln | Leu | Met | Cys | Thr | Ala |
| 195 | | | | | | 200 | | | | | | 205 | | | |
| Pro | Pro | Gly | Ala | Val | Gln | Gly | His | Trp | Ala | Arg | Glu | Ala | Pro | Gly | Ala |
| 210 | | | | | | 215 | | | | | | 220 | | | |
| Trp | Asp | Cys | Ser | Val | Glu | Asn | Gly | Gly | Cys | Glu | His | Ala | Cys | Asn | Ala |
| 225 | | | | | | 230 | | | | | | 235 | | | |
| Ile | Pro | Gly | Ala | Pro | Arg | Cys | Gln | Cys | Pro | Ala | Gly | Ala | Ala | Leu | Gln |
| | | | 245 | | | | | | 250 | | | | | | |
| Ala | Asp | Gly | Arg | Ser | Cys | Thr | Ala | Ser | Ala | Thr | Gln | Ser | Cys | Asn | Asp |
| | | | 260 | | | | | | 265 | | | | | | |
| Leu | Cys | Glu | His | Phe | Cys | Val | Pro | Asn | Pro | Asp | Gln | Pro | Gly | Ser | Tyr |
| 275 | | | | | | 280 | | | | | | 285 | | | |
| Ser | Cys | Met | Cys | Glu | Thr | Gly | Tyr | Arg | Leu | Ala | Ala | Asp | Gln | His | Arg |
| 290 | | | | | | 295 | | | | | | 300 | | | |
| Cys | Glu | Asp | Val | Asp | Asp | Cys | Ile | Leu | Glu | Pro | Ser | Pro | Cys | Pro | Gln |
| 305 | | | | | | 310 | | | | | | 315 | | | |
| Arg | Cys | Val | Asn | Thr | Gln | Gly | Gly | Phe | Glu | Cys | His | Cys | Tyr | Pro | Asn |
| | | | 325 | | | | | | 330 | | | | | | |
| Tyr | Asp | Leu | Val | Asp | Gly | Glu | Cys | Val | Glu | Pro | Val | Asp | Pro | Cys | Phe |
| | | | 340 | | | | | | 345 | | | | | | |
| Arg | Ala | Asn | Cys | Glu | Tyr | Gln | Cys | Gln | Pro | Leu | Asn | Gln | Thr | Ser | Tyr |
| 355 | | | | | | 360 | | | | | | 365 | | | |
| Leu | Cys | Val | Cys | Ala | Glu | Gly | Phe | Ala | Pro | Ile | Pro | His | Glu | Pro | His |
| 370 | | | | | | 375 | | | | | | 380 | | | |
| Arg | Cys | Gln | Met | Phe | Cys | Asn | Gln | Thr | Ala | Cys | Pro | Ala | Asp | Cys | Asp |
| 385 | | | | | | 390 | | | | | | 395 | | | |
| | | | | | | | | | | | | 400 | | | |

Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro Glu Gly Tyr Ile Leu Asp
 405 410 415
 Asp Gly Phe Ile Cys Met Asp Ile Asp Glu Cys Glu Asn Gly Gly Phe
 420 425 430
 Cys Ser Gly Val Cys His Asn Leu Pro Gly Thr Phe Glu Cys Ile Cys
 435 440 445
 Gly Pro Asp Ser Ala Leu Ala Arg His Ile Gly Thr Asp Cys Asp Ser
 450 455 460
 Gly Lys Val Asp Gly Gly Asp Ser Gly Ser Gly Glu Pro Pro Pro Ser
 465 470 475 480
 Pro Thr Pro Gly Ser Thr Leu Thr Pro Pro Ala Val Gly Leu Val His
 485 490 495
 Ser Gly Leu Leu Ile Gly Ile Ser Ile Ala Ser Leu Cys Leu Val Val
 500 505 510
 Ala Leu Leu Ala Leu Leu Cys His Leu Arg Lys Lys Gln Gly Ala Ala
 515 520 525
 Arg Ala Lys Met Glu Tyr Lys Cys Ala Ala Pro Ser Lys Glu Val Val
 530 535 540
 Leu Gln His Val Arg Thr Glu Arg Thr Pro Gln Arg Leu
 545 550 555

<210> 2864

<211> 740

<212> PRT

<213> Homo sapiens

<400> 2864

Met Ala Ser His Leu Arg Pro Pro Ser Pro Leu Leu Val Arg Val Tyr
 1 5 10 15
 Lys Ser Gly Pro Arg Val Arg Arg Lys Leu Glu Ser Tyr Phe Gln Ser
 20 25 30
 Ser Lys Ser Ser Gly Gly Gly Glu Cys Thr Val Ser Thr Gln Glu His
 35 40 45
 Glu Ala Pro Gly Thr Phe Arg Val Glu Phe Ser Glu Arg Ala Ala Lys
 50 55 60

Glu Arg Val Leu Lys Lys Gly Glu His Gln Ile Leu Val Asp Glu Lys
 65 70 75 80
 Pro Val Pro Ile Phe Leu Val Pro Thr Glu Asn Ser Ile Lys Lys Asn
 85 90 95
 Thr Arg Pro Gln Ile Ser Ser Leu Thr Gln Ser Gln Ala Glu Thr Pro
 100 105 110
 Ser Gly Asp Met His Gln His Glu Gly His Ile Pro Asn Ala Val Asp
 115 120 125
 Ser Cys Leu Gln Lys Ile Phe Leu Thr Val Thr Ala Asp Leu Asn Cys
 130 135 140
 Asn Leu Phe Ser Lys Glu Gln Arg Ala Tyr Ile Thr Thr Leu Cys Pro
 145 150 155 160
 Ser Ile Arg Lys Met Glu Gly His Asp Gly Ile Glu Lys Val Cys Gly
 165 170 175
 Asp Phe Gln Asp Ile Glu Arg Ile His Gln Phe Leu Ser Glu Gln Phe
 180 185 190
 Leu Glu Ser Glu Gln Lys Gln Gln Phe Ser Pro Ser Met Thr Glu Arg
 195 200 205
 Lys Pro Leu Ser Gln Gln Glu Arg Asp Ser Cys Ile Ser Pro Ser Glu
 210 215 220
 Pro Glu Thr Lys Ala Glu Gln Lys Ser Asn Tyr Phe Glu Val Pro Leu
 225 230 235 240
 Pro Tyr Phe Glu Tyr Phe Lys Tyr Ile Cys Pro Asp Lys Ile Asn Ser
 245 250 255
 Ile Glu Lys Arg Phe Gly Val Asn Ile Glu Ile Gln Glu Ser Ser Pro
 260 265 270
 Asn Met Val Cys Leu Asp Phe Thr Ser Ser Arg Ser Gly Asp Leu Glu
 275 280 285
 Ala Ala Arg Glu Ser Phe Ala Ser Glu Phe Gln Lys Asn Thr Glu Pro
 290 295 300
 Leu Lys Gln Glu Cys Val Ser Leu Ala Asp Ser Lys Gln Ala Asn Lys
 305 310 315 320
 Phe Lys Gln Glu Leu Asn His Gln Phe Thr Lys Leu Leu Ile Lys Glu
 325 330 335
 Lys Gly Gly Glu Leu Thr Leu Leu Gly Thr Gln Asp Asp Ile Ser Ala

| | | | |
|---|-------------------------------------|-----|-----|
| 340 | 345 | 350 | |
| Ala Lys Gln Lys Ile Ser Glu | Ala Phe Val Lys Ile Pro Val Lys Leu | | |
| 355 | 360 | 365 | |
| Phe Ala Ala Asn Tyr Met Met Asn Val Ile Glu Val Asp Ser Ala His | | | |
| 370 | 375 | 380 | |
| Tyr Lys Leu Leu Glu Thr Glu Leu Leu Gln Glu Ile Ser Glu Ile Glu | | | |
| 385 | 390 | 395 | 400 |
| Lys Arg Tyr Asp Ile Cys Ser Lys Val Ser Glu Lys Gly Gln Lys Thr | | | |
| 405 | 410 | 415 | |
| Cys Ile Leu Phe Glu Ser Lys Asp Lys Gln Val Asp Leu Ser Val His | | | |
| 420 | 425 | 430 | |
| Ala Tyr Ala Ser Phe Ile Asp Ala Phe Gln His Ala Ser Cys Gln Leu | | | |
| 435 | 440 | 445 | |
| Met Arg Glu Val Leu Leu Leu Lys Ser Leu Gly Lys Glu Arg Lys His | | | |
| 450 | 455 | 460 | |
| Leu His Gln Thr Lys Phe Ala Asp Asp Phe Arg Lys Arg His Pro Asn | | | |
| 465 | 470 | 475 | 480 |
| Val His Phe Val Leu Asn Gln Glu Ser Met Thr Leu Thr Gly Leu Pro | | | |
| 485 | 490 | 495 | |
| Asn His Leu Ala Lys Ala Lys Gln Tyr Val Leu Lys Gly Gly Gly Met | | | |
| 500 | 505 | 510 | |
| Ser Ser Leu Ala Gly Lys Lys Leu Lys Glu Gly His Glu Thr Pro Met | | | |
| 515 | 520 | 525 | |
| Asp Ile Asp Ser Asp Asp Ser Lys Ala Ala Ser Pro Pro Leu Lys Gly | | | |
| 530 | 535 | 540 | |
| Ser Val Ser Ser Glu Ala Ser Glu Leu Asp Lys Lys Glu Lys Gly Ile | | | |
| 545 | 550 | 555 | 560 |
| Cys Val Ile Cys Met Asp Thr Ile Ser Asn Lys Lys Val Leu Pro Lys | | | |
| 565 | 570 | 575 | |
| Cys Lys His Glu Phe Cys Ala Pro Cys Ile Asn Lys Ala Met Ser Tyr | | | |
| 580 | 585 | 590 | |
| Lys Pro Ile Cys Pro Thr Cys Gln Thr Ser Tyr Gly Ile Gln Lys Gly | | | |
| 595 | 600 | 605 | |
| Asn Gln Pro Glu Gly Ser Met Val Phe Thr Val Ser Arg Asp Ser Leu | | | |
| 610 | 615 | 620 | |
| Pro Gly Tyr Glu Ser Phe Gly Thr Ile Val Ile Thr Tyr Ser Met Lys | | | |

625 630 635 640
 Ala Gly Ile Gln Thr Glu Glu His Pro Asn Pro Gly Lys Arg Tyr Pro
 645 650 655
 Gly Ile Gln Arg Thr Ala Tyr Leu Pro Asp Asn Lys Glu Gly Arg Lys
 660 665 670
 Val Leu Lys Leu Leu Tyr Arg Ala Phe Asp Gln Lys Leu Ile Phe Thr
 675 680 685
 Val Gly Tyr Ser Arg Val Leu Gly Val Ser Asp Val Ile Thr Trp Asn
 690 695 700
 Asp Ile His His Lys Thr Ser Arg Phe Gly Gly Pro Glu Met Tyr Gly
 705 710 715 720
 Tyr Pro Asp Pro Ser Tyr Leu Lys Arg Val Lys Glu Glu Leu Lys Ala
 725 730 735
 Lys Gly Ile Glu
 740

<210> 2865

<211> 221

<212> PRT

<213> Homo sapiens

<400> 2865

Met Leu Cys Ser Val Ser Leu Val Ala Ala Pro Gly Ser Ser Arg Ser
 1 5 10 15
 Ser Asp Pro Gly Lys Gly Ser Gly Pro Pro Pro Ala Asn Thr His Pro
 20 25 30
 Gln Lys Gln Gln Gln Gln Gln Ala Arg Pro Val His Gly Ala Ala Gly
 35 40 45
 Gly Thr Cys Pro His Arg Pro Pro Pro Ala Ala Ala Leu Asp Phe Gln
 50 55 60
 Leu Gly Pro Leu Cys Gly Leu Met Gly Leu Arg Cys Ala Ala Leu Gln
 65 70 75 80
 Arg Pro Pro Cys Pro Pro Glu Leu Ala Ala Ala Arg Leu Ala Leu Ala
 85 90 95
 Ala Gly Gly Arg Gly Trp Val Lys Pro Val Leu Arg Pro Arg Leu Arg

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Pro Ala Gln Pro Ala His Pro Arg Asn Arg Ala Arg Pro Leu Cys Arg | | |
| 115 | 120 | 125 |
| Leu Gly Val Gly Ser Arg Gly Lys Gly Arg Ala Cys Gly Ser Pro His | | |
| 130 | 135 | 140 |
| Pro Ala Ala Leu Leu Pro Ala Leu Ser Leu Arg Ala Ser His Pro Ser | | |
| 145 | 150 | 155 |
| Arg Pro Gly Thr Gln Phe Pro Ala Arg Ala Thr Ala Arg Pro Ser Arg | | |
| 165 | 170 | 175 |
| Met Leu Trp Ala Arg Gly Pro Gly Arg Pro His Cys Gly Ser Cys Ser | | |
| 180 | 185 | 190 |
| Ser Pro Ala Ala Ala Arg His Arg Val His Ser Leu Thr His Leu Pro | | |
| 195 | 200 | 205 |
| Pro Pro Leu Ala Ser Pro Ser Pro Trp Ser Leu Ala Pro | | |
| 210 | 215 | 220 |

<210> 2866

<211> 477

<212> PRT

<213> Homo sapiens

<400> 2866

| | | |
|---|----|----|
| Met Gly Ala Arg Gly Leu Gly Gly Gly Ser Arg Val Met Cys Leu Thr | | |
| 1 | 5 | 10 |
| Ser Ala Pro Ser Leu Cys Cys Ser Phe Thr Trp Ser Ala Ala Arg Thr | | |
| 20 | 25 | 30 |
| Asp Arg Asn Val Ile Ser Val Leu Ser Gly Gln Val Val Glu Met Phe | | |
| 35 | 40 | 45 |
| Asp Arg Gln Phe Gln Glu Leu Tyr Leu Met Ser His Ser Val Ser Leu | | |
| 50 | 55 | 60 |
| Lys Gly Ile Pro Met Glu Lys Glu Pro Glu Pro Glu Pro Ile Val Leu | | |
| 65 | 70 | 75 |
| Pro Ser Val Val Pro Leu Val Pro Ala Gly Thr Val Ala Lys Lys Leu | | |
| 85 | 90 | 95 |
| Val Asn Pro Lys Tyr Ala Leu Val Lys Ala Lys Ser Val Asp Glu Ile | | |

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Ala Lys Ile Ser Ser Glu Lys Gln Glu Ala Lys Lys Pro Leu Gly Leu | | |
| 115 | 120 | 125 |
| Lys Gly Pro Ala Leu Ala Glu His Pro Gly Glu Leu Pro Glu Leu Leu | | |
| 130 | 135 | 140 |
| Pro Pro Ile His Pro Gly Leu Leu His Leu Glu Arg Ala Asn Met Phe | | |
| 145 | 150 | 155 |
| Glu Tyr Leu Pro Thr Trp Val Glu Pro Asp Pro Glu Pro Gly Ser Asp | | |
| 165 | 170 | 175 |
| Ile Leu Gly Tyr Ile Asn Ile Ile Asp Pro Asn Ile Trp Asn Pro Gln | | |
| 180 | 185 | 190 |
| Pro Ser Gln Met Asn Arg Ile Lys Ile Arg Asp Thr Ser Gln Ala Ser | | |
| 195 | 200 | 205 |
| Ala Gln His Gln Leu Trp Lys Gln Ser Gln Asp Ser Arg Pro Arg Pro | | |
| 210 | 215 | 220 |
| Glu Pro Cys Pro Pro Pro Glu Pro Ser Ala Pro Gln Asp Gly Val Pro | | |
| 225 | 230 | 235 |
| Ala Glu Asn Gly Leu Pro Gln Gly Asp Pro Glu Pro Leu Pro Pro Val | | |
| 245 | 250 | 255 |
| Pro Lys Pro Arg Thr Val Pro Val Ala Asp Val Leu Ala Arg Asp Ser | | |
| 260 | 265 | 270 |
| Ser Asp Ile Gly Trp Val Leu Glu Leu Pro Lys Glu Glu Ala Pro Gln | | |
| 275 | 280 | 285 |
| Asn Gly Thr Asp His Arg Leu Pro Arg Met Ala Gly Pro Gly His Ala | | |
| 290 | 295 | 300 |
| Pro Leu Gln Arg Gln Leu Ser Val Thr Gln Asp Asp Pro Glu Ser Leu | | |
| 305 | 310 | 315 |
| Gly Val Gly Leu Pro Asn Gly Leu Asp Gly Val Glu Glu Glu Asp Asp | | |
| 325 | 330 | 335 |
| Asp Asp Tyr Val Thr Leu Ser Asp Gln Asp Ser His Ser Gly Ser Ser | | |
| 340 | 345 | 350 |
| Gly Arg Gly Pro Gly Pro Arg Arg Pro Ser Val Ala Ser Ser Val Ser | | |
| 355 | 360 | 365 |
| Glu Glu Tyr Phe Glu Val Arg Glu His Ser Val Pro Leu Arg Arg Arg | | |
| 370 | 375 | 380 |
| His Ser Glu Gln Val Ala Asn Gly Pro Thr Pro Pro Pro Arg Arg Gln | | |

385 390 395 400
 Leu Ser Ala Pro His Ile Thr Arg Gly Thr Phe Val Gly Pro Gln Gly
 405 410 415
 Gly Ser Pro Trp Ala Gln Ser Arg Gly Arg Glu Glu Ala Asp Ala Leu
 420 425 430
 Lys Arg Met Gln Ala Gln Arg Ser Thr Asp Lys Glu Ala Gln Val Gly
 435 440 445
 Gln Gly Pro Cys Thr Pro Gly Val Thr Ser Pro Ser Leu Pro Ala Thr
 450 455 460
 Gln Glu Leu Glu Leu Leu Ser Ser Gly Leu Pro Cys Pro
 465 470 475

<210> 2867

<211> 216

<212> PRT

<213> Homo sapiens

<400> 2867

Met Thr Ala Ser Arg Ala Trp Asp Met Gly Gly Arg Ser Ala Arg Arg
 1 5 10 15
 Asn Ser Ser Arg Ser Ser Val Pro Leu Pro Leu Arg Ser His Phe Leu
 20 25 30
 His Thr Pro Ser Ala Ser Ala Trp Ser Ser Thr Ser Pro Ser Leu Ala
 35 40 45
 Arg Pro Cys Arg Asn Ser Ser Ala Ser Arg Asp Leu Leu Pro Ser Arg
 50 55 60
 Ser Ser Trp Arg Lys Asn Leu Ala Arg Pro Trp Met Pro Glu Ala Pro
 65 70 75 80
 Arg Asp Arg His Cys Ala Arg Ser Phe Ser Met Val Ala Ser Thr Ala
 85 90 95
 Ser Met Leu Gly Leu Gly Ser Gly Gln Leu Ala Cys Val Cys Pro Arg
 100 105 110
 Val Leu Pro Ala Gly Pro Cys Val Ser Cys Val Val Pro Gly Glu Thr
 115 120 125
 Val Ala Ser Gly Arg Cys Leu Trp Arg Trp Gly Gly Ala Gln Leu His

130 135 140
 Glu Cys Thr Val Leu Gly Ser Gly Glu Trp Gly Arg Asp Gly Cys Ala
 145 150 155 160
 Gln Pro Asp Cys Leu Leu Asn Cys Gln Pro His Arg Ala Trp Asp Arg
 165 170 175
 Ala Arg Ser Leu Trp His Cys Ile Pro Ser Trp Leu Gln Gly Gly Gly
 180 185 190
 Ala Gly His Cys Pro Ala Gly Ala Glu Met Pro Trp Met Glu Thr Ser
 195 200 205
 Pro Trp Leu Gly Arg Leu Asp Ala
 210 215

<210> 2868

<211> 842

<212> PRT

<213> Homo sapiens

<400> 2868

Met Trp Ala Gln Leu Leu Leu Gly Met Leu Ala Leu Ser Pro Ala Ile
 1 5 10 15
 Ala Glu Glu Leu Pro Asn Tyr Leu Val Thr Leu Pro Ala Arg Leu Asn
 20 25 30
 Phe Pro Ser Val Gln Lys Val Cys Leu Asp Leu Ser Pro Gly Tyr Ser
 35 40 45
 Asp Val Lys Phe Thr Val Thr Leu Glu Thr Lys Asp Lys Thr Gln Lys
 50 55 60
 Leu Leu Glu Tyr Ser Gly Leu Lys Lys Arg His Leu His Cys Ile Ser

 65 70 75 80
 Phe Leu Val Pro Pro Pro Ala Gly Gly Thr Glu Glu Val Ala Thr Ile
 85 90 95
 Arg Val Ser Gly Val Gly Asn Asn Ile Ser Phe Glu Glu Lys Lys Lys
 100 105 110
 Val Leu Ile Gln Arg Gln Gly Asn Gly Thr Phe Val Gln Thr Asp Lys
 115 120 125

Pro Leu Tyr Thr Ser Gly Gln Gln Val Tyr Phe Arg Ile Val Thr Met
 130 135 140
 Asp Ser Asn Phe Val Pro Val Asn Asp Lys Tyr Ser Met Val Glu Leu
 145 150 155 160
 Gln Asp Pro Asn Ser Asn Arg Ile Ala Gln Trp Leu Glu Val Val Pro
 165 170 175
 Glu Gln Gly Ile Val Asp Leu Ser Phe Gln Leu Ala Pro Glu Ala Met
 180 185 190
 Leu Gly Thr Tyr Thr Val Ala Val Ala Glu Gly Lys Thr Phe Gly Thr
 195 200 205
 Phe Ser Val Glu Glu Tyr Val Leu Pro Lys Phe Lys Val Glu Val Val
 210 215 220
 Glu Pro Lys Glu Leu Ser Thr Val Gln Glu Ser Phe Leu Val Lys Ile
 225 230 235 240
 Cys Cys Arg Tyr Thr Tyr Gly Lys Pro Met Leu Gly Ala Val Gln Val
 245 250 255
 Ser Val Cys Gln Lys Ala Asn Thr Tyr Trp Tyr Arg Glu Val Glu Arg
 260 265 270
 Glu Gln Leu Pro Asp Lys Cys Arg Asn Leu Ser Gly Gln Thr Asp Lys
 275 280 285
 Thr Gly Cys Phe Ser Ala Pro Val Asp Met Ala Thr Phe Asp Leu Ile
 290 295 300
 Gly Tyr Ala Tyr Ser His Gln Ile Asn Val Val Ala Thr Val Val Glu
 305 310 315 320
 Glu Gly Thr Gly Val Glu Ala Asn Ala Thr Gln Asn Ile Tyr Ile Ser
 325 330 335
 Pro Gln Met Gly Ser Met Thr Phe Glu Asp Thr Ser Asn Phe Tyr His
 340 345 350
 Pro Asn Phe Pro Phe Ser Gly Lys Ile Arg Val Arg Gly His Asp Asp
 355 360 365
 Ser Phe Leu Lys Asn His Leu Val Phe Leu Val Ile Tyr Gly Thr Asn
 370 375 380
 Gly Thr Phe Asn Gln Thr Leu Val Thr Asp Asn Asn Gly Leu Ala Pro
 385 390 395 400
 Phe Thr Leu Glu Thr Ser Gly Trp Asn Gly Thr Asp Val Ser Leu Glu
 405 410 415

Gly Lys Phe Gln Met Glu Asp Leu Val Tyr Asn Pro Glu Gln Val Pro
 420 425 430
 Arg Tyr Tyr Gln Asn Ala Tyr Leu His Leu Arg Pro Phe Tyr Ser Thr
 435 440 445
 Thr Arg Ser Phe Leu Gly Ile His Arg Leu Asn Gly Pro Leu Lys Cys
 450 455 460
 Gly Gln Pro Gln Glu Val Leu Ala Asp Tyr Tyr Ile Asp Pro Ala Asp
 465 470 475 480
 Ala Ser Pro Asp Gln Glu Ile Ser Phe Ser Tyr Tyr Leu Ile Gly Lys
 485 490 495
 Gly Ser Leu Val Met Glu Gly Gln Lys His Leu Asn Ser Lys Lys Lys
 500 505 510
 Gly Leu Lys Ala Ser Phe Ser Leu Ser Leu Thr Phe Thr Ser Arg Leu
 515 520 525
 Ala Pro Asp Pro Ser Leu Val Ile Tyr Ala Ile Phe Pro Ser Gly Gly
 530 535 540
 Val Val Ala Asp Lys Ile Gln Phe Ser Val Glu Met Cys Phe Asp Asn
 545 550 555 560
 Gln Val Ser Leu Gly Phe Ser Pro Ser Gln Gln Leu Pro Gly Ala Glu
 565 570 575
 Val Glu Leu Gln Leu Gln Ala Ala Pro Gly Ser Leu Cys Ala Leu Arg
 580 585 590
 Ala Val Asp Glu Ser Val Leu Leu Leu Arg Pro Asp Arg Glu Leu Ser
 595 600 605
 Asn Arg Ser Val Tyr Gly Met Phe Pro Phe Trp Tyr Gly His Tyr Pro
 610 615 620
 Tyr Gln Val Ala Glu Tyr Asp Gln Cys Pro Val Ser Gly Pro Trp Asp
 625 630 635 640
 Phe Pro Gln Pro Leu Ile Asp Pro Met Pro Gln Gly His Ser Ser Gln
 645 650 655
 Arg Ser Ile Ile Trp Arg Pro Ser Phe Ser Glu Gly Thr Asp Leu Phe
 660 665 670
 Ser Phe Phe Arg Asp Val Gly Leu Lys Ile Leu Ser Asn Ala Lys Ile
 675 680 685
 Lys Lys Pro Val Asp Cys Ser His Arg Ser Pro Glu Tyr Ser Thr Ala
 690 695 700

Met Gly Ala Gly Gly Gly His Pro Glu Ala Phe Glu Ser Ser Thr Pro
 705 710 715 720
 Leu His Gln Ala Glu Asp Ser Gln Val Arg Gln Tyr Leu Pro Glu Thr
 725 730 735
 Trp Leu Trp Asp Leu Phe Pro Ile Gly Asn Ser Gly Lys Glu Ala Val
 740 745 750
 His Val Thr Val Pro Asp Ala Ile Thr Glu Trp Lys Ala Met Ser Phe
 755 760 765
 Cys Thr Ser Gln Ser Arg Gly Phe Gly Leu Ser Pro Thr Val Gly Leu
 770 775 780
 Thr Ala Phe Lys Pro Phe Phe Val Asp Leu Thr Leu Pro Tyr Ser Val
 785 790 795 800
 Val Arg Gly Glu Ser Phe Arg Leu Thr Ala Thr Ile Phe Asn Tyr Leu
 805 810 815
 Lys Asp Cys Ile Arg Val Gln Thr Asp Leu Ala Lys Ser His Glu Tyr
 820 825 830
 Gln Leu His Cys Trp Arg Trp Glu Arg Met
 835 840

<210> 2869

<211> 236

<212> PRT

<213> Homo sapiens

<400> 2869

Met Leu Pro Asp Cys Leu Ser Ala Glu Gly Glu Leu Arg Cys Arg Arg
 1 5 10 15
 Leu Leu Ala Gly Ala Thr Ala Arg Leu Arg Ala Arg Pro Ala Ser Ala
 20 25 30
 Ala Val Leu Val Pro Leu Cys Ser Val Arg Gly Val Pro Ala Leu Leu
 35 40 45
 Tyr Thr Leu Arg Ser Ser Arg Leu Thr Gly Arg His Lys Gly Asp Val
 50 55 60
 Ser Phe Pro Gly Gly Lys Cys Asp Pro Ala Asp Gln Asp Val Val His
 65 70 75 80

Thr Ala Leu Arg Glu Thr Arg Glu Glu Leu Gly Leu Ala Val Pro Glu
 . 85 90 95
 Glu His Val Trp Gly Leu Leu Arg Pro Val Tyr Asp Pro Gln Lys Ala
 100 105 110
 Thr Val Val Pro Val Leu Ala Gly Val Gly Pro Leu Asp Pro Gln Ser
 115 120 125
 Leu Arg Pro Asn Ser Glu Glu Val Asp Glu Val Phe Ala Leu Pro Leu
 130 135 140
 Ala His Leu Leu Gln Thr Gln Asn Gln Gly Tyr Thr His Phe Cys Arg
 145 150 155 160
 Gly Gly His Phe Arg Tyr Thr Leu Pro Val Phe Leu His Gly Pro His
 165 170 175
 Arg Val Trp Gly Leu Thr Ala Val Ile Thr Glu Phe Ala Leu Gln Leu
 180 185 190
 Leu Ala Pro Gly Thr Tyr Gln Pro Arg Leu Ala Gly Leu Thr Cys Ser
 195 200 205
 Gly Ala Glu Gly Leu Ala Arg Pro Lys Gln Pro Leu Ala Ser Pro Cys
 210 215 220
 Gln Ala Ser Ser Thr Pro Gly Leu Asn Lys Gly Leu
 225 230 235

<210> 2870

<211> 715

<212> PRT

<213> Homo sapiens

<400> 2870

Met Glu Glu Asn Ser Lys Lys Asp His Arg Ala Leu Leu Asn Gln Gly
 1 5 10 15
 Glu Glu Asp Glu Leu Glu Val Phe Gly Tyr Arg Asp His Asn Val Arg
 20 25 30
 Lys Ala Phe Cys Leu Val Ala Ser Val Leu Thr Cys Gly Gly Leu Leu
 35 40 45
 Leu Val Phe Tyr Trp Arg Pro Gln Trp Arg Val Trp Ala Asn Cys Ile
 50 55 60

Pro Cys Pro Leu Gln Glu Ala Asp Thr Val Leu Leu Arg Thr Thr Asp
 65 70 75 80
 Glu Phe Gln Arg Tyr Met Arg Lys Lys Val Phe Cys Leu Tyr Leu Tyr
 85 90 95
 Thr Leu Lys Phe Pro Val Ser Lys Lys Trp Glu Glu Ser Leu Val Ala
 100 105 110
 Asp Arg His Ser Val Ile Asn Gln Ala Leu Ile Lys Pro Glu Leu Lys
 115 120 125
 Leu Arg Cys Met Glu Val Gln Lys Ile Arg Tyr Val Trp Asn Asp Leu
 130 135 140
 Glu Lys Arg Phe Gln Lys Val Gly Leu Leu Glu Asp Ser Asn Ser Cys
 145 150 155 160
 Ser Asp Ile His Gln Thr Phe Gly Leu Gly Leu Thr Ser Glu Glu Gln
 165 170 175
 Glu Val Arg Arg Leu Val Cys Gly Pro Asn Ala Ile Glu Val Glu Ile
 180 185 190
 Gln Pro Ile Trp Lys Leu Leu Val Lys Gln Val Leu Asn Pro Phe Tyr
 195 200 205
 Val Phe Gln Ala Phe Thr Leu Thr Leu Trp Leu Ser Gln Gly Tyr Ile
 210 215 220
 Glu Tyr Ser Val Ala Ile Ile Ile Leu Thr Val Ile Ser Ile Val Leu
 225 230 235 240
 Ser Val Tyr Asp Leu Arg Gln Gln Ser Val Lys Leu His Asn Leu Val
 245 250 255
 Glu Asp His Asn Lys Val Gln Val Thr Ile Ile Val Lys Asp Lys Gly
 260 265 270
 Leu Glu Glu Leu Glu Ser Arg Leu Leu Val Pro Gly Asp Ile Leu Ile
 275 280 285
 Leu Pro Gly Lys Phe Ser Leu Pro Cys Asp Ala Val Leu Ile Asp Gly
 290 295 300
 Ser Cys Val Val Asn Glu Gly Met Leu Thr Gly Glu Ser Ile Pro Val
 305 310 315 320
 Thr Lys Thr Pro Leu Pro Gln Met Glu Asn Thr Met Pro Trp Lys Cys
 325 330 335
 His Ser Leu Glu Asp Tyr Arg Lys His Val Leu Phe Cys Gly Thr Glu
 340 345 350

Val Ile Gln Val Glu Pro Ser Gly Gln Gly Pro Val Arg Ala Val Val
 355 360 365
 Leu Gln Thr Gly Tyr Asn Thr Ala Lys Gly Asp Leu Val Arg Ser Ile
 370 375 380
 Leu Tyr Pro Arg Pro Leu Asn Phe Lys Leu Tyr Ser Asp Ala Phe Lys
 385 390 395 400
 Phe Ile Val Phe Leu Ala Cys Leu Gly Val Met Gly Phe Phe Tyr Ala
 405 410 415
 Leu Gly Val Tyr Met Tyr His Gly Val Pro Pro Lys Asp Thr Val Thr
 420 425 430
 Met Ala Leu Ile Leu Leu Thr Val Thr Val Pro Pro Val Leu Pro Ala
 435 440 445
 Ala Leu Thr Ile Gly Asn Val Tyr Ala Gln Lys Arg Leu Lys Lys Lys
 450 455 460
 Lys Ile Phe Cys Ile Ser Pro Gln Arg Ile Asn Met Cys Gly Gln Ile
 465 470 475 480
 Asn Leu Val Cys Phe Asp Lys Thr Gly Thr Leu Thr Glu Asp Gly Leu
 485 490 495
 Asp Leu Trp Gly Thr Val Pro Thr Ala Asp Asn Cys Phe Gln Glu Ala
 500 505 510
 His Ser Phe Ala Ser Gly Gln Ala Val Pro Trp Ser Pro Leu Cys Ala
 515 520 525
 Ala Met Ala Ser Cys His Ser Leu Ile Leu Leu Asn Gly Thr Ile Gln
 530 535 540
 Gly Asp Pro Leu Asp Leu Lys Met Phe Glu Gly Thr Ala Trp Lys Met
 545 550 555 560
 Glu Asp Cys Ile Val Asp Ser Cys Lys Phe Gly Thr Ser Val Ser Asn
 565 570 575
 Ile Ile Lys Pro Gly Pro Lys Ala Ser Lys Ser Pro Val Glu Ala Ile
 580 585 590
 Ile Thr Leu Cys Gln Phe Pro Phe Ser Ser Ser Leu Gln Arg Met Ser
 595 600 605
 Val Ile Ala Gln Leu Ala Gly Glu Asn His Phe His Val Tyr Met Lys
 610 615 620
 Gly Ala Pro Glu Met Val Ala Arg Phe Cys Arg Ser Glu Thr Val Pro

625 630 635 640
 Lys Asn Phe Pro Gln Glu Leu Arg Ser Tyr Thr Val Gln Gly Phe Arg
 645 650 655
 Val Ile Ala Leu Ala His Lys Thr Leu Lys Met Gly Asn Leu Ser Glu
 660 665 670
 Val Glu His Leu Ala Arg Glu Lys Val Glu Ser Glu Leu Thr Phe Leu
 675 680 685
 Gly Leu Leu Tyr Val Lys Gln Gln Pro Trp Tyr Cys Glu Val Tyr Gln
 690 695 700
 Tyr Ser Glu Cys Phe Leu Ala Asn Gln Ser Pro
 705 710 715

<210> 2871

<211> 681

<212> PRT

<213> Homo sapiens

<400> 2871

Met Glu Ser Met Leu Asn Lys Leu Lys Ser Thr Val Thr Lys Val Thr
 1 5 10 15
 Ala Asp Val Thr Ser Ala Val Met Gly Asn Pro Val Thr Arg Glu Phe
 20 25 30
 Asp Val Gly Arg His Ile Ala Ser Gly Gly Asn Gly Leu Ala Trp Lys
 35 40 45
 Ile Phe Asn Gly Thr Lys Lys Ser Thr Lys Gln Glu Val Ala Val Phe
 50 55 60
 Val Phe Asp Lys Lys Leu Ile Asp Lys Tyr Gln Lys Phe Glu Lys Asp
 65 70 75 80
 Gln Ile Ile Asp Ser Leu Lys Arg Gly Val Gln Gln Leu Thr Arg Leu
 85 90 95
 Arg His Pro Arg Leu Leu Thr Val Gln His Pro Leu Glu Glu Ser Arg
 100 105 110
 Asp Cys Leu Ala Phe Cys Thr Glu Pro Val Phe Ala Ser Leu Ala Asn
 115 120 125
 Val Leu Gly Asn Trp Glu Asn Leu Pro Ser Pro Ile Ser Pro Asp Ile

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Lys Asp Tyr Lys Leu Tyr Asp Val Glu Thr Lys Tyr Gly Leu Leu Gln | | | |
| 145 | 150 | 155 | 160 |
| Val Ser Glu Gly Leu Ser Phe Leu His Ser Ser Val Lys Met Val His | | | |
| | 165 | 170 | 175 |
| Gly Asn Ile Thr Pro Glu Asn Ile Ile Leu Asn Lys Ser Gly Ala Trp | | | |
| | 180 | 185 | 190 |
| Lys Ile Met Gly Phe Asp Phe Cys Val Ser Ser Thr Asn Pro Ser Glu | | | |
| | 195 | 200 | 205 |
| Gln Glu Pro Lys Phe Pro Cys Lys Glu Trp Asp Pro Asn Leu Pro Ser | | | |
| 210 | 215 | 220 | |
| Leu Cys Leu Pro Asn Pro Glu Tyr Leu Ala Pro Glu Tyr Ile Leu Ser | | | |
| 225 | 230 | 235 | 240 |
| Val Ser Cys Glu Thr Ala Ser Asp Met Tyr Ser Leu Gly Thr Val Met | | | |
| | 245 | 250 | 255 |
| Tyr Ala Val Phe Asn Lys Gly Lys Pro Ile Phe Glu Val Asn Lys Gln | | | |
| | 260 | 265 | 270 |
| Asp Ile Tyr Lys Ser Phe Ser Arg Gln Leu Asp Gln Leu Ser Arg Leu | | | |
| | 275 | 280 | 285 |
| Gly Ser Ser Ser Leu Thr Asn Ile Pro Glu Glu Val Arg Glu His Val | | | |
| 290 | 295 | 300 | |
| Lys Leu Leu Leu Asn Val Thr Pro Thr Val Arg Pro Asp Ala Asp Gln | | | |
| 305 | 310 | 315 | 320 |
| Met Thr Lys Ile Pro Phe Phe Asp Asp Val Gly Ala Val Thr Leu Gln | | | |
| | 325 | 330 | 335 |
| Tyr Phe Asp Thr Leu Phe Gln Arg Asp Asn Leu Gln Lys Ser Gln Phe | | | |
| | 340 | 345 | 350 |
| Phe Lys Gly Leu Pro Lys Val Leu Pro Lys Leu Pro Lys Arg Val Ile | | | |
| | 355 | 360 | 365 |
| Val Gln Arg Ile Leu Pro Cys Leu Thr Ser Glu Phe Val Asn Pro Asp | | | |
| 370 | 375 | 380 | |
| Met Val Pro Phe Val Leu Pro Asn Val Leu Leu Ile Ala Glu Glu Cys | | | |
| 385 | 390 | 395 | 400 |
| Thr Lys Glu Glu Tyr Val Lys Leu Ile Leu Pro Glu Leu Gly Pro Val | | | |
| | 405 | 410 | 415 |
| Phe Lys Gln Gln Glu Pro Ile Gln Ile Leu Leu Ile Phe Leu Gln Lys | | | |

| | | |
|---|-----|-----|
| 420 | 425 | 430 |
| Met Asp Leu Leu Leu Thr Lys Thr Pro Pro Asp Glu Ile Lys Asn Ser | | |
| 435 | 440 | 445 |
| Val Leu Pro Met Val Tyr Arg Ala Leu Glu Ala Pro Ser Ile Gln Ile | | |
| 450 | 455 | 460 |
| Gln Glu Leu Cys Leu Asn Ile Ile Pro Thr Phe Ala Asn Leu Ile Asp | | |
| 465 | 470 | 475 |
| Tyr Pro Ser Met Lys Asn Ala Leu Ile Pro Arg Ile Lys Asn Ala Cys | | |
| 485 | 490 | 495 |
| Leu Gln Thr Ser Ser Leu Ala Val Arg Val Asn Ser Leu Val Cys Leu | | |
| 500 | 505 | 510 |
| Gly Lys Ile Leu Glu Tyr Leu Asp Lys Trp Phe Val Leu Asp Asp Ile | | |
| 515 | 520 | 525 |
| Leu Pro Phe Leu Gln Gln Ile Pro Ser Lys Glu Pro Ala Val Leu Met | | |
| 530 | 535 | 540 |
| Gly Ile Leu Gly Ile Tyr Lys Cys Thr Phe Thr His Lys Lys Leu Gly | | |
| 545 | 550 | 555 |
| Ile Thr Lys Glu Gln Leu Ala Gly Lys Val Leu Pro His Leu Ile Pro | | |
| 565 | 570 | 575 |
| Leu Ser Ile Glu Asn Asn Leu Asn Leu Asn Gln Leu Asn Ser Phe Ile | | |
| 580 | 585 | 590 |
| Ser Val Ile Lys Glu Met Leu Asn Arg Leu Glu Ser Glu His Lys Thr | | |
| 595 | 600 | 605 |
| Lys Leu Glu Gln Leu His Ile Met Gln Glu Gln Gln Lys Ser Leu Asp | | |
| 610 | 615 | 620 |
| Ile Gly Asn Gln Met Asn Val Ser Glu Glu Met Lys Val Thr Asn Ile | | |
| 625 | 630 | 635 |
| Gly Asn Gln Gln Ile Asp Lys Val Phe Asn Asn Ile Gly Ala Asp Leu | | |
| 645 | 650 | 655 |
| Leu Thr Gly Ser Glu Ser Glu Asn Lys Glu Asp Gly Leu Gln Asn Lys | | |
| 660 | 665 | 670 |
| His Lys Arg Ala Ser Leu Thr Leu Glu | | |
| 675 | 680 | |

<211> 412

<212> PRT

<213> Homo sapiens

<400> 2872

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Met Gly Val Trp Thr Gly Arg Leu Gly Gly Trp Ala Gln Val Met Phe
  1             5             10             15
Gln Phe Leu Ser Gln Gly Phe Tyr Cys Gly Val Gly Leu Phe Thr Arg
      20             25             30
Phe Leu Lys Leu Leu Gly Ala Leu Leu Leu Leu Ala Leu Ala Leu Phe
      35             40             45
Leu Gly Phe Leu Gln Leu Gly Trp Arg Phe Leu Val Gly Leu Gly Asp
      50             55             60
Arg Leu Gly Trp Arg Asp Lys Ala Thr Trp Leu Phe Ser Trp Leu Asp
      65             70             75             80
Ser Pro Ala Leu Gln Arg Cys Leu Thr Leu Leu Arg Asp Ser Arg Pro
      85             90             95
Trp Gln Arg Leu Val Arg Ile Val Gln Trp Gly Trp Leu Glu Leu Pro
      100            105            110
Trp Val Lys Gln Asn Ile Asn Arg Gln Gly Asn Ala Pro Val Ala Ser
      115            120            125
Gly Arg Tyr Cys Gln Pro Glu Glu Glu Val Ala Arg Leu Leu Thr Met
      130            135            140
Ala Gly Val Pro Glu Asp Glu Leu Asn Pro Phe His Val Leu Gly Val
      145            150            155            160
Glu Ala Thr Ala Ser Asp Val Glu Leu Lys Lys Ala Tyr Arg Gln Leu
      165            170            175
Ala Val Met Val His Pro Asp Lys Asn His His Pro Arg Ala Glu Glu
      180            185            190
Ala Phe Lys Val Leu Arg Ala Ala Trp Asp Ile Val Ser Asn Ala Glu
      195            200            205
Lys Arg Lys Glu Tyr Glu Met Lys Arg Met Ala Glu Asn Glu Leu Ser
      210            215            220
Arg Ser Val Asn Glu Phe Leu Ser Lys Leu Gln Asp Asp Leu Lys Glu
      225            230            235            240
Ala Met Asn Thr Met Met Cys Ser Arg Cys Gln Gly Lys His Arg Arg

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 245 | | 250 | | 255 | | | | | | | | | | |
| Phe | Glu | Met | Asp | Arg | Glu | Leu | Lys | Ser | Ala | Arg | Tyr | Cys | Ala | Glu | Cys |
| | 260 | | 265 | | 270 | | | | | | | | | | |
| Asn | Arg | Leu | His | Pro | Ala | Glu | Glu | Gly | Asp | Phe | Trp | Ala | Glu | Ser | Ser |
| | 275 | | 280 | | 285 | | | | | | | | | | |
| Met | Leu | Gly | Leu | Lys | Ile | Thr | Tyr | Phe | Ala | Leu | Met | Asp | Gly | Lys | Val |
| | 290 | | 295 | | 300 | | | | | | | | | | |
| Tyr | Asp | Ile | Thr | Glu | Trp | Ala | Gly | Cys | Gln | Arg | Val | Gly | Ile | Ser | Pro |
| 305 | | | 310 | | 315 | | | | | | | | | 320 | |
| Asp | Thr | His | Arg | Val | Pro | Tyr | His | Ile | Ser | Phe | Gly | Ser | Arg | Ile | Pro |
| | 325 | | 330 | | 335 | | | | | | | | | | |
| Gly | Thr | Arg | Gly | Arg | Gln | Arg | Ala | Thr | Pro | Asp | Ala | Pro | Pro | Ala | Asp |
| | 340 | | 345 | | 350 | | | | | | | | | | |
| Leu | Gln | Asp | Phe | Leu | Ser | Arg | Ile | Phe | Gln | Val | Pro | Pro | Gly | Gln | Met |
| | 355 | | 360 | | 365 | | | | | | | | | | |
| Pro | Asn | Gly | Asn | Phe | Phe | Ala | Ala | Pro | Gln | Pro | Ala | Pro | Gly | Ala | Ala |
| | 370 | | 375 | | 380 | | | | | | | | | | |
| Ala | Ala | Ser | Lys | Pro | Asn | Ser | Thr | Val | Pro | Lys | Gly | Glu | Ala | Lys | Pro |
| 385 | | | 390 | | 395 | | | | | | | | | 400 | |
| Lys | Arg | Arg | Lys | Lys | Val | Arg | Arg | Pro | Phe | Gln | Arg | | | | |
| | 405 | | 410 | | | | | | | | | | | | |

<210> 2873

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2873

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Leu | Ala | Asn | Leu | Ser | Val | Ala | Met | Ala | Val | Met | Pro | Phe | Ile |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Val | Thr | Asp | Leu | Ile | Gly | Gly | Lys | Trp | Ile | Phe | Gly | His | Phe | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Cys | Asn | Val | Phe | Ser | Val | Asn | Val | Met | Cys | Cys | Thr | Ala | Trp | Ile | Leu |
| | | | 35 | | | | | 40 | | | | | 45 | | |

Thr Leu Tyr Val Ile Ser Ile Asp Arg Tyr Leu Gly Ile Met Lys Pro
 50 55 60
 Leu Thr Tyr Pro Met Arg Gln Lys Gly Lys Cys Met Thr Lys Met Ile
 65 70 75 80
 Leu Ser Val Cys Leu Leu Ser Ala Phe Val Thr Leu Pro Thr Ile Phe
 85 90 95
 Gly Arg Ala Gln Asn Val Asn Asp Asp Lys Val Cys Leu Ala Arg Gln
 100 105 110
 Gln

<210> 2874

<211> 164

<212> PRT

<213> Homo sapiens

<400> 2874

Met His Tyr Lys Gln Val Leu Glu Arg Leu Cys Lys His Leu Pro Pro
 1 5 10 15
 Ser His Ala Asp Phe Arg Asp Cys Arg Gly Glu Cys Trp Glu Pro Ala
 20 25 30
 Pro Pro Gly Ala His Ala Thr Val Gln Ala Gly Cys Ser Gln Thr Glu
 35 40 45
 Pro Ser Gln Gly Gly Ala Pro Arg Val Glu Arg Ser Ala Asp Ala Gly
 50 55 60
 Ser Gln Val Phe Ile Arg Val Gly Ala Gly Phe Tyr Ser Arg Ser Gly
 65 70 75 80
 Val Trp Leu His Leu Asp Phe Phe Phe Phe Phe Leu Arg Leu Ser Leu
 85 90 95
 Thr Leu Ser Pro Arg Leu Glu Cys Asn Gly Ala Ile Ser Ala His Cys
 100 105 110
 Asn Leu His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Gly
 115 120 125
 Ala Ala Arg Ile Thr Gly Ala Arg His His Ala Arg Leu Ile Phe Val
 130 135 140

Phe Leu Val Glu Thr Gly Phe His Arg Val Gly Gln Ala Gly Leu Glu
 145 150 155 160
 Leu Leu Thr Leu

<210> 2875

<211> 370

<212> PRT

<213> Homo sapiens

<400> 2875

Met Phe Glu Thr Glu Ala Asp Glu Lys Arg Glu Met Ala Leu Glu Glu
 1 5 10 15
 Gly Lys Gly Pro Gly Ala Glu Asp Ser Pro Pro Ser Lys Glu Pro Ser
 20 25 30
 Pro Gly Gln Glu Leu Pro Pro Gly Gln Asp Leu Pro Pro Asn Lys Asp
 35 40 45
 Ser Pro Ser Gly Gln Glu Pro Ala Pro Ser Gln Glu Pro Leu Ser Ser
 50 55 60
 Lys Asp Ser Ala Thr Ser Glu Gly Ser Pro Pro Gly Pro Asp Ala Pro
 65 70 75 80
 Pro Ser Lys Asp Val Pro Pro Cys Gln Glu Pro Pro Pro Ala Gln Asp
 85 90 95
 Leu Ser Pro Cys Gln Asp Leu Pro Ala Gly Gln Glu Pro Leu Pro His
 100 105 110
 Gln Asp Pro Leu Leu Thr Lys Asp Leu Pro Ala Ile Gln Glu Ser Pro
 115 120 125
 Thr Arg Asp Leu Pro Pro Cys Gln Asp Leu Pro Pro Ser Gln Val Ser
 130 135 140
 Leu Pro Ala Lys Ala Leu Thr Glu Asp Thr Met Ser Ser Gly Asp Leu
 145 150 155 160
 Leu Ala Ala Thr Gly Asp Pro Pro Ala Ala Pro Arg Pro Ala Phe Val
 165 170 175
 Ile Pro Glu Val Arg Leu Asp Ser Thr Tyr Ser Gln Lys Ala Gly Ala
 180 185 190

Glu Gln Gly Cys Ser Gly Asp Glu Glu Asp Ala Glu Glu Ala Glu Glu
 195 200 205
 Val Glu Glu Gly Glu Glu Gly Glu Glu Asp Glu Asp Glu Asp Thr Ser
 210 215 220
 Asp Asp Asn Tyr Gly Glu Arg Ser Glu Ala Lys Arg Ser Ser Met Ile
 225 230 235 240
 Glu Thr Gly Gln Gly Ala Glu Gly Gly Leu Ser Leu Arg Val Gln Asn
 245 250 255
 Ser Leu Arg Arg Arg Thr His Ser Glu Gly Ser Leu Leu Gln Glu Pro
 260 265 270
 Arg Gly Pro Cys Phe Ala Ser Asp Thr Thr Leu His Cys Ser Asp Gly
 275 280 285
 Glu Gly Ala Ala Ser Thr Trp Gly Met Pro Ser Pro Ser Thr Leu Lys
 290 295 300
 Lys Glu Leu Gly Arg Asn Gly Gly Ser Met His His Leu Ser Leu Phe
 305 310 315 320
 Phe Thr Gly His Arg Lys Met Ser Gly Ala Asp Thr Val Gly Asp Asp
 325 330 335
 Asp Glu Ala Ser Arg Lys Arg Lys Ser Lys Asn Leu Tyr Val Gly Lys
 340 345 350
 Ile Pro Gly Phe Cys Ala Pro Leu Pro Pro Leu Pro Gln Gly Leu Ser
 355 360 365
 Leu Leu
 370

<210> 2876

<211> 438

<212> PRT

<213> Homo sapiens

<400> 2876

Met Met Tyr Ala Pro Val Glu Phe Ser Glu Ala Glu Phe Ser Arg Ala
 1 5 10 15
 Glu Tyr Gln Arg Lys Gln Gln Phe Trp Asp Ser Val Arg Leu Ala Leu

| | | | | | |
|---------|-------------------------|-------------------------|-----------------|-----|-----|
| | 20 | | 25 | | 30 |
| Phe Thr | Leu Ala Ile Val | Ala Ile Ile Gly Ile | Ala Ile Gly Ile | Val | |
| | 35 | | 40 | | 45 |
| Thr His | Phe Val Val Glu Asp | Asp Lys Ser Phe Tyr | Tyr Leu Ala | Ser | |
| | 50 | | 55 | | 60 |
| Phe Lys | Val Thr Asn Ile Lys Tyr | Lys Glu Asn Tyr Gly Ile | Arg Ser | | |
| | 65 | | 70 | | 75 |
| Ser Arg | Glu Phe Ile Glu Arg | Ser His Gln Ile Glu Arg | Met Met | Ser | |
| | | 85 | | 90 | |
| Arg Ile | Phe Arg His Ser Ser Val | Gly Gly Arg Phe Ile | Lys Ser His | | |
| | 100 | | 105 | | 110 |
| Val Ile | Lys Leu Ser Pro Asp Glu | Gln Gly Val Asp Ile | Leu Ile Val | | |
| | 115 | | 120 | | 125 |
| Leu Ile | Phe Arg Tyr Pro Ser Thr | Asp Ser Ala Glu Gln Ile | Lys Lys | | |
| | 130 | | 135 | | 140 |
| Lys Ile | Glu Lys Ala Leu Tyr Gln | Ser Leu Lys Thr Lys Gln | Leu Ser | | |
| | 145 | | 150 | | 155 |
| Leu Thr | Leu Asn Lys Pro Ser Phe | Arg Leu Thr Pro Ile Asp | Ser Lys | | |
| | | 165 | | 170 | |
| Lys Met | Arg Asn Leu Leu Asn Ser | Arg Cys Gly Ile Arg Met | Thr Ser | | |
| | 180 | | 185 | | 190 |
| Ser Asn | Met Pro Leu Pro Ala Ser | Ser Ser Thr Gln Arg Ile | Val Gln | | |
| | 195 | | 200 | | 205 |
| Gly Arg | Glu Thr Ala Met Glu Gly | Glu Trp Pro Trp Gln Ala | Ser Leu | | |
| | 210 | | 215 | | 220 |
| Gln Leu | Ile Gly Ser Gly His Gln | Cys Gly Ala Ser Leu Ile | Ser Asn | | |
| | 225 | | 230 | | 235 |
| Thr Trp | Leu Leu Thr Ala Ala His | Cys Phe Trp Lys Asn Lys | Asp Pro | | |
| | | 245 | | 250 | |
| Thr Gln | Trp Ile Ala Thr Phe Gly | Ala Thr Ile Thr Pro Pro | Ala Val | | |
| | 260 | | 265 | | 270 |
| Lys Arg | Asn Val Arg Lys Ile Ile | Leu His Glu Asn Tyr His | Arg Glu | | |
| | 275 | | 280 | | 285 |
| Thr Asn | Glu Asn Asp Ile Ala Leu | Val Gln Leu Ser Thr Gly | Val Glu | | |
| | 290 | | 295 | | 300 |

Phe Ser Asn Ile Val Gln Arg Val Cys Leu Pro Asp Ser Ser Ile Lys
 305 310 315 320
 Leu Pro Pro Lys Thr Ser Val Phe Val Thr Gly Phe Gly Ser Ile Val
 325 330 335
 Asp Asp Gly Pro Ile Gln Asn Thr Leu Arg Gln Ala Arg Val Glu Thr
 340 345 350
 Ile Ser Thr Asp Val Cys Asn Arg Lys Asp Val Tyr Asp Gly Leu Ile
 355 360 365
 Thr Pro Gly Met Leu Cys Ala Gly Phe Met Glu Gly Lys Ile Asp Ala
 370 375 380
 Cys Lys Gly Asp Ser Gly Gly Pro Leu Val Tyr Asp Asn His Asp Ile
 385 390 395 400
 Trp Tyr Ile Val Gly Ile Val Ser Trp Gly Gln Ser Cys Ala Leu Pro
 405 410 415
 Lys Lys Pro Gly Val Tyr Thr Arg Val Thr Lys Tyr Arg Asp Trp Ile
 420 425 430
 Ala Ser Lys Thr Gly Met
 435

<210> 2877

<211> 273

<212> PRT

<213> Homo sapiens

<400> 2877

Met Val Gly Glu Ile Ala Ser Ala Ser Ala Cys Asp His Ala Asn Pro
 1 5 10 15
 Gln Leu Ser Asn Pro Ser Pro Phe Gln Thr Leu Gly Leu Asp Leu Val
 20 25 30
 Leu Glu Cys Val Ala Arg Tyr Gln Pro Lys Gln Arg Ser Met Phe Thr
 35 40 45
 Phe Val Cys Gly Gln Leu Phe Arg Arg Lys Glu Phe Ser Ser His Phe
 50 55 60
 Lys Asn Val His Gly Asp Ile His Ala Gly Leu Asn Gly Trp Met Glu
 65 70 75 80

Gln Arg Cys Pro Leu Ala Tyr Tyr Gly Cys Thr Tyr Ser Gln Arg Arg
 85 90 95
 Phe Cys Pro Ser Ile Gln Gly Ala Lys Ile Ile His Asp Arg Gln Leu
 100 105 110
 Arg Ser Phe Gly Val Gln Pro Cys Val Ser Thr Val Leu Val Glu Pro
 115 120 125
 Ala Arg Asn Cys Val Leu Gly Leu His Asn Asp His Leu Ser Ser Leu
 130 135 140
 Pro Phe Glu Val Leu Gln His Ile Ala Gly Phe Leu Asp Gly Phe Ser
 145 150 155 160
 Leu Cys Gln Leu Ser Cys Val Ser Lys Leu Met Arg Asp Val Cys Gly
 165 170 175
 Ser Leu Leu Gln Ser Arg Gly Met Val Ile Leu Gln Trp Gly Lys Arg
 180 185 190
 Lys Tyr Pro Glu Gly Asn Ser Ser Trp Gln Ile Lys Glu Lys Val Trp
 195 200 205
 Arg Phe Ser Thr Ala Phe Cys Ser Val Asn Glu Trp Lys Phe Ala Asp
 210 215 220
 Ile Leu Ser Met Ala Asp His Leu Lys Lys Cys Ser Tyr Asn Val Val
 225 230 235 240
 Glu Lys Arg Glu Glu Ala Ile Pro Leu Pro Cys Met Cys Val Thr Arg
 245 250 255
 Glu Leu Thr Lys Glu Gly Arg Ser Leu Arg Ser Val Leu Lys Pro Val
 260 265 270
 Leu

<210> 2878

<211> 136

<212> PRT

<213> Homo sapiens

<400> 2878

Met Ala Gly Trp Gly Leu Val Asp Val Ser Gly Ala Pro Glu Pro Trp
 1 5 10 15

Arg Ile Pro His Gly Ile Pro Leu Pro Ala Leu Ser Gly Leu Cys Gly
 20 25 30
 Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35 40 45
 Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50 55 60
 Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65 70 75 80
 Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85 90 95
 Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
 100 105 110
 Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
 115 120 125
 Leu Ser Trp His Ala Ser Arg Leu
 130 135

<210> 2879

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2879

Met Val Arg His Ser Gly Gly Gly Gly Leu Val Tyr Ile Tyr Asp Leu
 1 5 10 15
 Leu Lys Val Phe Gly Ile Phe Arg Glu Val Cys Phe Leu Phe Cys Phe
 20 25 30
 Leu Arg Leu Met Leu Pro Arg Leu Glu Cys Asn Gly Ala Val Leu Gly
 35 40 45
 Ser Leu Gln Pro Pro Pro Gly Phe Arg Gly Phe Ser Cys Leu Ser
 50 55 60
 Phe Pro Gly Ser Trp Asp Tyr Arg Cys Met Pro Pro Cys Pro Ala Asn
 65 70 75 80
 Phe Cys Ile Phe Ser Arg Asp Gly Ile Ser Pro Cys Trp Pro Gly Trp
 85 90 95

Ser His Thr Pro Asp Leu Arg

100

<210> 2880

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2880

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Arg | His | Met | Val | Arg | Gly | Gln | Leu | Tyr | Lys | His | Phe | Asp | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Arg | Lys | Asn | Ala | Lys | Gln | Ala | Glu | Ala | Arg | Leu | Asp | Gln | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Arg | Leu | Lys | Val | Ile | Cys | Leu | Tyr | His | Val | Lys | Leu | Leu | Thr | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Gln | Arg | Gln | Leu | Gln | Lys | Glu | Leu | Gln | Arg | Leu | Gln | Gln | Glu | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Met | Lys | Lys | Lys | Phe | Ser | Ser | Tyr | Leu | Gly | Asn | Gly | Phe | Gln | Lys | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Pro | Glu | Asp | Val | Leu | Val | Phe | Ser | Pro | Gln | Gly | Arg | Gln | Lys | His | Arg |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Ala | Pro | Gln | Ala | Lys | Lys | Met | Arg | Ala | Leu | Ala | Thr | Arg | Met | Ala | Gln |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Asp | Thr | Cys | Lys | Ser | Lys | Ser | Gln | Val | Pro | Pro | Ser | His | Asp | Ala | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Leu | Lys | Asp | Pro | Met | Lys | Ser | Lys | Lys | Gln | Pro | Leu | Ser | Gln | Asn | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Thr | Ala | Cys | Phe | Ile | Lys | Glu | Gln | Pro | Gln | Ala | Gln | Glu | Lys | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ser | Val | Asn | Pro | Ser | Lys | Asp | Val | Asp | Pro | Ser | Lys | Gly | Ile | Ser | Val |
| | | 165 | | | | | | | 170 | | | | 175 | | |
| Pro | Cys | Gln | Asn | Gln | Glu | Val | Ser | Thr | Asn | Thr | Ile | Glu | Gln | Gly | Pro |
| | 180 | | | | | | | | 185 | | | | 190 | | |
| Ser | Ser | Ser | Pro | Ala | Ser | Gly | Leu | Gln | Trp | Gly | Asp | Asn | Thr | Leu | |
| | 195 | | | | | | 200 | | | | | 205 | | | |

<210> 2881

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2881

```

Met Asp Val Glu Gly Gly Leu Cys Gly Ala Val Leu Val Ser Trp Val
 1             5             10             15
Cys Pro Leu Pro Pro Phe Leu Leu Leu Leu Ser Ser Trp Thr Phe Ser
          20             25             30
Ala Ile Ala Val Leu Ser Phe Thr Leu His His Leu Asp Gly Met Ala
          35             40             45
Pro Ala Thr Lys His Leu Pro Gly Leu Arg Ser Ala Leu Pro Cys Leu
          50             55             60
Ala Ser Ala Thr Pro Thr Ser Gln Leu Gln Gly Met His Tyr Phe Tyr
 65             70             75             80
Phe Lys Pro Ser Ala Ser Phe Leu Leu Ser Leu Gln Pro Pro Pro His
          85             90             95
Leu His Leu Leu Lys Asn Gly Arg Lys Lys Lys Leu
          100            105

```

<210> 2882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2882

```

Met Gln Ser Glu Asn Ala Ile Ser Pro Asp Leu Thr Leu Val Phe Asn
 1             5             10             15
Glu Lys Tyr Ile Leu Asn Gln Met Tyr Phe Leu Lys Lys Arg Val His
          20             25             30
Ser Ser Leu Ser Leu Ser Leu Ala Leu Ala Leu Ala Leu Ala Leu Ser
          35             40             45

```

Thr Gly Ser Leu Ser Leu Ser Phe His Gly Leu Pro Leu Met Pro Ser
 50 55 60
 Arg Ser Trp Thr Val Leu Leu Pro Ser Arg Leu Thr Ala Thr Ser Leu
 65 70 75 80
 Pro Asp Ser Pro Ala Ser Ala Cys Arg Val Pro Ala Ile Ala Gly Ala
 85 90 95
 Cys Arg His Ala
 100

<210> 2883

<211> 897

<212> PRT

<213> Homo sapiens

<400> 2883

Met Glu Val Ile Cys Tyr Gly Leu Thr Leu Pro Leu Asp Gly Glu Thr
 1 5 10 15
 Val Lys Tyr Cys Val Asp Val Tyr Thr Asp Trp Ile Met Ala Leu Val
 20 25 30
 Leu Pro Lys Asp Ser Ile Pro Leu Pro Val Ile Lys Glu Pro Asn Gln
 35 40 45
 Tyr Val Gln Thr Ile Leu Lys His Leu Gln Asn Leu Phe Val Pro Arg
 50 55 60
 Gln Glu Gln Gly Ser Ser Gln Ile Arg Leu Cys Leu Gln Val Leu Arg
 65 70 75 80
 Ala Ile Gln Lys Leu Ala Arg Glu Ser Ser Leu Met Ala Arg Glu Thr
 85 90 95
 Trp Glu Val Leu Leu Leu Phe Leu Leu Gln Ile Asn Asp Ile Leu Leu
 100 105 110
 Ala Pro Pro Thr Val Gln Gly Gly Ile Ala Glu Asn Leu Ala Glu Lys
 115 120 125
 Leu Ile Gly Val Leu Phe Glu Val Trp Leu Leu Ala Cys Thr Arg Cys
 130 135 140
 Phe Pro Thr Pro Pro Tyr Trp Lys Thr Ala Lys Glu Met Val Ala Asn
 145 150 155 160

| | | | |
|---|-----|-----|-----|
| Trp Arg His His Pro Ala Val Val Glu Gln Trp Ser Lys Val Ile Cys | | | |
| | 165 | 170 | 175 |
| Ala Leu Thr Ser Arg Leu Leu Arg Phe Thr Tyr Gly Pro Ser Phe Pro | | | |
| | 180 | 185 | 190 |
| Ala Phe Lys Val Pro Asp Glu Asp Ala Ser Leu Ile Pro Pro Glu Met | | | |
| | 195 | 200 | 205 |
| Asp Asn Glu Cys Val Ala Gln Thr Trp Phe Arg Phe Leu His Met Leu | | | |
| | 210 | 215 | 220 |
| Ser Asn Pro Val Asp Leu Ser Asn Pro Ala Ile Ile Ser Ser Thr Pro | | | |
| 225 | 230 | 235 | 240 |
| Lys Phe Gln Glu Gln Phe Leu Asn Val Ser Gly Met Pro Gln Glu Leu | | | |
| | 245 | 250 | 255 |
| Asn Gln Tyr Pro Cys Leu Lys His Leu Pro Gln Ile Phe Phe Arg Ala | | | |
| | 260 | 265 | 270 |
| Met Arg Gly Ile Ser Cys Leu Val Asp Ala Phe Leu Gly Ile Ser Arg | | | |
| | 275 | 280 | 285 |
| Pro Arg Ser Asp Ser Ala Pro Pro Thr Pro Val Asn Arg Leu Ser Met | | | |
| | 290 | 295 | 300 |
| Pro Gln Ser Ala Ala Val Ser Thr Thr Pro Pro His Asn Arg Arg His | | | |
| 305 | 310 | 315 | 320 |
| Arg Ala Val Thr Val Asn Lys Ala Thr Met Lys Thr Ser Thr Val Ser | | | |
| | 325 | 330 | 335 |
| Thr Ala His Ala Ser Lys Val Gln His Gln Thr Ser Ser Thr Ser Pro | | | |
| | 340 | 345 | 350 |
| Leu Ser Ser Pro Asn Gln Thr Ser Ser Glu Pro Arg Pro Leu Pro Ala | | | |
| | 355 | 360 | 365 |
| Pro Arg Arg Pro Lys Val Asn Ser Ile Leu Asn Leu Phe Gly Ser Trp | | | |
| | 370 | 375 | 380 |
| Leu Phe Asp Ala Ala Phe Val His Cys Lys Leu His Asn Gly Ile Asn | | | |
| 385 | 390 | 395 | 400 |
| Arg Asp Ser Ser Met Thr Ala Ile Thr Thr Gln Ala Ser Met Glu Phe | | | |
| | 405 | 410 | 415 |
| Arg Arg Lys Gly Ser Gln Met Ser Thr Asp Thr Met Val Ser Asn Pro | | | |
| | 420 | 425 | 430 |
| Met Phe Asp Ala Ser Glu Phe Pro Asp Asn Tyr Glu Ala Gly Arg Ala | | | |
| | 435 | 440 | 445 |

Glu Ala Cys Gly Thr Leu Cys Arg Ile Phe Cys Ser Lys Lys Thr Gly
 450 455 460
 Glu Glu Ile Leu Pro Ala Tyr Leu Ser Arg Phe Tyr Met Leu Leu Ile
 465 470 475 480
 Gln Gly Leu Gln Ile Asn Asp Tyr Val Cys His Pro Val Leu Ala Ser
 485 490 495
 Val Ile Leu Asn Ser Pro Pro Leu Phe Cys Cys Asp Leu Lys Gly Ile
 500 505 510
 Asp Val Val Val Pro Tyr Phe Ile Ser Ala Leu Glu Thr Ile Leu Pro
 515 520 525
 Asp Arg Glu Leu Ser Lys Phe Lys Ser Tyr Val Asn Pro Thr Glu Leu
 530 535 540
 Arg Arg Ser Ser Ile Asn Ile Leu Leu Ser Leu Leu Pro Leu Pro His
 545 550 555 560
 His Phe Gly Thr Val Lys Ser Glu Val Val Leu Glu Gly Lys Phe Ser
 565 570 575
 Asn Asp Asp Ser Ser Ser Tyr Asp Lys Pro Ile Thr Phe Leu Ser Leu
 580 585 590
 Lys Leu Arg Leu Val Asn Ile Leu Ile Gly Ala Leu Gln Thr Glu Thr
 595 600 605
 Asp Pro Asn Asn Thr Gln Met Ile Leu Gly Ala Met Leu Asn Ile Val
 610 615 620
 Gln Asp Ser Ala Leu Leu Glu Ala Ile Gly Cys Gln Met Glu Met Gly
 625 630 635 640
 Gly Gly Glu Asn Asn Leu Lys Ser His Ser Arg Thr Asn Ser Gly Ile
 645 650 655
 Ser Ser Ala Ser Gly Gly Ser Thr Glu Pro Thr Thr Pro Asp Ser Glu
 660 665 670
 Arg Pro Ala Gln Ala Leu Leu Arg Asp Tyr Ala Leu Asn Thr Asp Ser
 675 680 685
 Ala Ala Gly Leu Leu Ile Arg Ser Ile His Leu Val Thr Gln Arg Leu
 690 695 700
 Asn Ser Gln Trp Arg Gln Asp Met Ser Ile Ser Leu Ala Ala Leu Glu
 705 710 715 720
 Leu Leu Ser Gly Leu Ala Lys Val Lys Val Met Val Asp Ser Gly Asp

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 725 | | 730 | | 735 | | | | | | | | | | |
| Arg | Lys | Arg | Ala | Ile | Ser | Ser | Val | Cys | Thr | Tyr | Ile | Val | Tyr | Gln | Cys |
| | 740 | | 745 | | 750 | | | | | | | | | | |
| Ser | Arg | Pro | Ala | Pro | Leu | His | Ser | Arg | Asp | Leu | His | Ser | Met | Ile | Val |
| | 755 | | 760 | | 765 | | | | | | | | | | |
| Ala | Ala | Phe | Gln | Cys | Leu | Cys | Val | Trp | Leu | Thr | Glu | His | Pro | Asp | Met |
| | 770 | | 775 | | 780 | | | | | | | | | | |
| Leu | Asp | Glu | Lys | Asp | Cys | Leu | Lys | Glu | Val | Leu | Glu | Ile | Val | Glu | Leu |
| 785 | | | 790 | | 795 | | | | | | | | | 800 | |
| Gly | Ile | Ser | Gly | Ser | Lys | Ser | Lys | Asn | Asn | Glu | Gln | Glu | Val | Lys | Tyr |
| | 805 | | 810 | | 815 | | | | | | | | | | |
| Lys | Gly | Asp | Lys | Glu | Pro | Asn | Pro | Ala | Ser | Met | Arg | Val | Lys | Asp | Ala |
| | 820 | | 825 | | 830 | | | | | | | | | | |
| Ala | Glu | Ala | Thr | Leu | Thr | Cys | Ile | Met | Gln | Leu | Leu | Gly | Ala | Phe | Pro |
| | 835 | | 840 | | 845 | | | | | | | | | | |
| Ser | Pro | Ser | Gly | Pro | Ala | Ser | Pro | Cys | Ser | Leu | Val | Asn | Glu | Thr | Thr |
| | 850 | | 855 | | 860 | | | | | | | | | | |
| Leu | Ile | Lys | Tyr | Ser | Arg | Leu | Pro | Thr | Ile | Asn | Lys | Gln | Leu | Glu | Pro |
| 865 | | | 870 | | 875 | | | | | | | | | 880 | |
| Glu | Phe | Tyr | Thr | Ser | Leu | Phe | Gln | Glu | Val | Gly | Leu | Lys | Asn | Cys | Ser |
| | 885 | | 890 | | 895 | | | | | | | | | | |

Ser

<210> 2884

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2884

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Ser | Arg | Leu | Arg | Arg | Ser | Gln | Met | Glu | Met | Arg | Asp | Leu | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Gly | Pro | Gly | Val | Lys | Val | Thr | Phe | Val | Arg | Thr | Leu | Trp | Leu | Glu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Cys | Pro | Cys | Pro | Arg | Asn | Leu | Trp | Asn | Phe | Glu | Leu | Glu | Ser | Glu |

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Asp Leu Gly Tyr Leu Ala Glu Glu Ile Ser Lys Gln Gln Ser Val Gln | | |
| 50 | 55 | 60 |
| Asp Val Ala Trp Leu Leu Leu Val Val Cys Ala His Ile Cys Glu Gln | | |
| 65 | 70 | 75 |
| Arg His Asp Lys Lys Leu Glu Leu Ile Phe Lys Lys Glu Ala Glu Cys | | |
| 85 | 90 | 95 |
| Lys Ser Leu Glu Asn Leu Gln Pro Gly His Val Val Glu Lys Lys Lys | | |
| 100 | 105 | 110 |
| Thr Ile Phe Trp Arg Gly Ile Gln Ala Ser Cys Arg Lys Leu Gln Val | | |
| 115 | 120 | 125 |
| Thr Arg Ser Lys Met Leu Ile Ala Lys Ile Val Gly Lys Thr Pro | | |
| 130 | 135 | 140 |

<210> 2885

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2885

| |
|---|
| Met Ser Lys Arg Tyr Leu Gln Lys Ala Thr Lys Gly Lys Leu Leu Ile |
| 1 5 10 15 |
| Ile Ile Phe Ile Val Thr Leu Trp Gly Lys Val Val Ser Ser Ala Asn |
| 20 25 30 |
| His His Lys Ala His His Val Lys Thr Gly Thr Cys Glu Val Val Ala |
| 35 40 45 |
| Leu His Arg Cys Cys Asn Lys Asn Lys Ile Glu Glu Arg Ser Gln Thr |
| 50 55 60 |
| Val Lys Cys Ser Cys Phe Pro Gly Gln Val Ala Gly Thr Thr Arg Ala |
| 65 70 75 80 |
| Ala Pro Ser Cys Val Asp Ala Ser Ile Val Glu Gln Lys Trp Trp Cys |
| 85 90 95 |
| His Met Gln Pro Cys Leu Glu Gly Glu Glu Cys Lys Val Leu Pro Asp |
| 100 105 110 |

Arg Lys Gly Trp Ser Cys Ser Ser Gly Asn Lys Val Lys Thr Thr Arg
 115 120 125

Val Thr His

130

<210> 2886

<211> 275

<212> PRT

<213> Homo sapiens

<400> 2886

Met Gly Ala Pro His Trp Trp Asp Gln Leu Gln Ala Gly Ser Ser Glu
 1 5 10 15

Val Asp Trp Cys Glu Asp Asn Tyr Thr Ile Val Pro Ala Ile Ala Glu
 20 25 30

Phe Tyr Asn Thr Ile Ser Asn Val Leu Phe Phe Ile Leu Pro Pro Ile
 35 40 45

Cys Met Cys Leu Phe Arg Gln Tyr Ala Thr Cys Phe Asn Ser Gly Ile
 50 55 60

Tyr Leu Ile Trp Thr Leu Leu Val Val Val Gly Ile Gly Ser Val Tyr
 65 70 75 80

Phe His Ala Thr Leu Ser Phe Leu Gly Gln Met Leu Asp Glu Leu Ala
 85 90 95

Val Leu Trp Val Leu Met Cys Ala Leu Ala Met Trp Phe Pro Arg Arg
 100 105 110

Tyr Leu Pro Lys Ile Phe Arg Asn Asp Arg Gly Arg Phe Lys Val Val
 115 120 125

Val Ser Val Leu Ser Ala Val Thr Thr Cys Pro Ala Phe Val Lys Pro
 130 135 140

Ala Ile Asn Asn Ile Ser Leu Met Thr Leu Gly Val Pro Cys Thr Ala
 145 150 155 160

Leu Leu Ile Ala Glu Leu Lys Arg Cys Asp Asn Met Arg Val Phe Lys
 165 170 175

Leu Gly Leu Phe Ser Gly Leu Trp Trp Thr Leu Ala Leu Phe Cys Trp
 180 185 190

Ile Ser Asp Arg Ala Phe Cys Glu Leu Leu Ser Ser Phe Asn Phe Pro
 195 200 205
 Tyr Leu His Cys Met Trp His Ile Leu Ile Cys Leu Ala Ala Tyr Leu
 210 215 220
 Gly Cys Val Cys Phe Ala Tyr Phe Asp Ala Ala Ser Glu Ile Pro Glu
 225 230 235 240
 Gln Gly Pro Val Ile Lys Phe Trp Pro Asn Glu Lys Trp Ala Phe Ile
 245 250 255
 Gly Val Pro Tyr Val Ser Leu Leu Cys Ala Asn Lys Lys Ser Ser Val
 260 265 270
 Lys Ile Thr
 275

<210> 2887

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2887

Met Phe Ser Ala Pro Gly Arg Glu Thr Ala Gly Asp Val Leu Met Leu
 1 5 10 15
 Arg Trp Phe Val Gln Gln Pro Thr Ser Cys Ser His Ala Gln Pro Leu
 20 25 30
 Pro Pro Pro His Gly Thr Ala Ser Leu Ser Pro Leu Val Pro Ser Cys
 35 40 45
 Gly Ser Ala Ala Trp Pro Ser Leu His Tyr Leu Gly Ser Pro Ala Asp
 50 55 60
 Ser Gly Cys Ser Arg Gly Gln Arg Ala Leu Pro Ala Val Trp Pro Pro
 65 70 75 80
 Ser Cys Tyr Ser Gln Cys Pro Gln Gly Arg Pro Pro His Pro Val Pro
 85 90 95
 Arg Ser Pro Arg Arg Gly Ser Arg Asp Leu Gly Lys Glu Pro Gly Glu
 100 105 110
 Glu Ala Ala Pro Trp Pro Ser Pro Cys Asp Ser Arg Leu Tyr Arg His
 115 120 125

Pro Met Pro Arg Thr Pro Leu Ser Ala Ser Ala Gly Cys Asp Pro Ser
 130 135 140
 Leu Ile Gln Pro Ser Pro His Pro Thr Pro Pro Gln Gln Gly Cys Val
 145 150 155 160
 Thr Pro Phe His Arg
 165

<210> 2888

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2888

Met Gly Asn Ser Leu Ser Ile Arg Pro Asp Ser Thr Met Gly Asn Ser
 1 5 10 15
 Thr Pro Val Pro Pro Asp Ser Ser Leu Gly Tyr Ile Ile His His Trp
 20 25 30
 Asn Gln Phe Asp Pro Asp Thr Leu Lys Gly Lys Cys Ile Ile Phe Phe
 35 40 45
 Cys Asn Thr Val Trp Pro His Tyr Glu Leu Pro Ser Pro Gln Gln Trp
 50 55 60
 Ala Val Ser Gly Ser Leu Asn Tyr Asp Thr Ile Leu Gln Leu Asp Leu
 65 70 75 80
 Leu Cys Lys Arg Leu Gly Arg Trp Ser Glu Val Pro Tyr Val Gln Ala
 85 90 95
 Leu Val Cys Asp Val Pro Leu Pro Val Ser Met Cys Ser His Cys Ser
 100 105 110
 Pro Pro Thr Tyr
 115

<210> 2889

<211> 148

<212> PRT

<213> Homo sapiens

<400> 2889

Met Glu His Met Leu Leu Ala Asn His Thr Asp Lys Ala Thr Phe Thr
 1 5 10 15
 Gly Thr Gln Arg Gln Arg Ser Cys Ser Gly Ala Ser Val Ser Gln Pro
 20 25 30
 Arg Pro Leu Arg Gly Lys Leu Val Gly Tyr Trp Asp Pro His Ser Arg
 35 40 45
 Leu Leu Ser Arg Gly Arg Ala Leu Gly Ser Val Ser Ala Pro Ser Thr
 50 55 60
 Pro Arg Gly Arg Gly Trp Lys Ala Thr Phe Asp Gly Cys Ile Leu His
 65 70 75 80
 Asp Asp Leu Leu Thr Lys Val His Gly Phe Gln Ser Leu Ile Gly Leu
 85 90 95
 Gln Gln His Leu Ala Cys Gly Asp Ser Gly Ser Leu Met Lys Asn Cys
 100 105 110
 His Asp Val Arg Lys Ser Leu Ser Glu Arg Gly Trp Gly Ala Ala Cys
 115 120 125
 Trp Gly Gly Gly Gly Val Ala Ser Arg Glu Lys Leu His Pro Leu Ala
 130 135 140
 Glu Ser Gly Thr
 145

<210> 2890

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2890

Met Gly Leu Gly Arg Cys Trp Arg Arg Val Leu Val Leu Pro Gly Lys
 1 5 10 15
 Val Leu Pro Pro Leu Val Ala Trp Ile Lys Tyr His Phe Cys Lys Ser
 20 25 30
 His Tyr Ala Gln Ala Glu Met Ala Phe Pro Ser Ser Gly Leu Pro Cys
 35 40 45

Cys Ser Thr Cys Phe Pro Leu Arg Thr Cys Asp Val Thr Pro Gly Leu
 50 55 60
 Cys Pro Ser Pro Gly Lys Thr Gly Asn Pro Phe Arg Ala Gly Gly Val
 65 70 75 80
 Pro Val Leu Val Leu Cys Ala Val Thr Pro Ala Gln Cys Leu Ala His
 85 90 95
 Thr Arg Trp Leu Cys Arg Cys Pro Ala Ala
 100 105

<210> 2891

<211> 187

<212> PRT

<213> Homo sapiens

<400> 2891

Met Tyr Met Tyr Leu Lys Asn Ile Ser Leu Cys His Ile Lys His Ala
 1 5 10 15
 Phe Phe Pro Cys Val Cys Val Cys Val Phe Ser Gly Gln Met Tyr Gln
 20 25 30
 Gln Tyr Gln Gln Gln Ala Gly Tyr Gly Ala Gln Gln Pro Gln Ala Pro
 35 40 45
 Pro Gln Gln Pro Gln Gln Tyr Gly Ile Gln Tyr Ser Ala Ser Tyr Ser
 50 55 60
 Gln Gln Thr Gly Pro Gln Gln Pro Gln Gln Phe Gln Gly Tyr Gly Gln
 65 70 75 80
 Gln Pro Thr Ser Gln Ala Pro Ala Pro Ala Phe Ser Gly Gln Pro Gln
 85 90 95
 Gln Leu Pro Ala Gln Pro Pro Gln Gln Tyr Gln Ala Ser Asn Tyr Pro
 100 105 110
 Ala Gln Thr Tyr Thr Ala Gln Thr Ser Gln Pro Thr Asn Tyr Thr Val
 115 120 125
 Ala Pro Ala Ser Gln Pro Gly Met Ala Pro Ser Gln Pro Gly Ala Tyr
 130 135 140
 Gln Pro Arg Pro Gly Phe Thr Ser Leu Pro Gly Ser Thr Met Thr Pro
 145 150 155 160

Pro Pro Ser Gly Pro Asn Pro Tyr Ala Arg Asn Arg Pro Pro Phe Gly
 165 170 175

Gln Gly Tyr Thr Gln Pro Gly Pro Gly Tyr Arg
 180 185

<210> 2892

<211> 437

<212> PRT

<213> Homo sapiens

<400> 2892

Met Lys Val Asp Arg Thr Lys Leu Lys Lys Thr Pro Thr Glu Ala Pro
 1 5 10 15
 Ala Asp Cys Arg Ala Leu Ile Asp Lys Leu Lys Val Cys Asn Asp Glu
 20 25 30
 Gln Leu Leu Leu Glu Leu Gln Gln Ile Lys Thr Trp Asn Ile Gly Lys
 35 40 45
 Cys Glu Leu Tyr His Trp Val Asp Leu Leu Asp Arg Phe Asp Gly Ile
 50 55 60
 Leu Ala Asp Ala Gly Gln Thr Val Glu Asn Met Ser Trp Met Leu Val
 65 70 75 80
 Cys Asp Arg Pro Glu Arg Glu Gln Leu Lys Met Leu Leu Leu Ala Val
 85 90 95
 Leu Asn Phe Thr Ala Leu Leu Ile Glu Tyr Ser Phe Ser Arg His Leu
 100 105 110
 Tyr Ser Ser Ile Glu His Leu Thr Thr Leu Leu Ala Ser Ser Asp Met
 115 120 125
 Gln Val Val Leu Glu Val Ala Ala Gly Met Ala Ala Ala Met Pro Leu
 130 135 140
 Ala Leu Leu Val Leu Leu Leu Gly Pro Gly Gly Trp Cys Leu Ala
 145 150 155 160
 Glu Pro Pro Arg Asp Ser Leu Arg Glu Glu Leu Val Ile Thr Pro Leu
 165 170 175
 Pro Ser Gly Asp Val Ala Ala Thr Phe Gln Phe Arg Thr Arg Trp Asp
 180 185 190

Ser Glu Leu Gln Arg Glu Gly Val Ser His Tyr Arg Leu Phe Pro Lys
 195 200 205
 Ala Leu Gly Gln Leu Ile Ser Lys Tyr Ser Leu Arg Glu Leu His Leu
 210 215 220
 Ser Phe Thr Gln Gly Phe Trp Arg Thr Arg Tyr Trp Gly Pro Pro Phe
 225 230 235 240
 Leu Gln Ala Pro Ser Gly Ala Glu Leu Trp Val Trp Phe Gln Asp Thr
 245 250 255
 Val Thr Asp Val Asp Lys Ser Trp Lys Glu Leu Ser Asn Val Leu Ser
 260 265 270
 Gly Ile Phe Cys Ala Ser Leu Asn Phe Ile Asp Ser Thr Asn Thr Val
 275 280 285
 Thr Pro Thr Ala Ser Phe Lys Pro Leu Gly Leu Ala Asn Asp Thr Asp
 290 295 300
 His Tyr Phe Leu Arg Tyr Ala Val Leu Pro Arg Glu Val Val Cys Thr
 305 310 315 320
 Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser Ser Lys Ala
 325 330 335
 Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His Thr Ser Tyr
 340 345 350
 His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn Ala Arg Cys
 355 360 365
 Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val Val Phe Asp
 370 375 380
 Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu Phe Arg Met
 385 390 395 400
 Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser Glu Ser Arg
 405 410 415
 Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Pro Cys Leu Cys Val Pro
 420 425 430
 Arg Thr Thr Arg His
 435

<210> 2893

<211> 725

<212> PRT

<213> Homo sapiens

<400> 2893

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Met Pro Pro Phe Leu Leu Leu Glu Ala Val Cys Val Phe Leu Phe Ser
  1              5              10              15
Arg Val Pro Pro Ser Leu Pro Leu Gln Glu Val His Val Ser Lys Glu
      20              25              30
Thr Ile Gly Lys Ile Ser Ala Ala Ser Lys Met Met Trp Cys Ser Ala
      35              40              45
Ala Val Asp Ile Met Phe Leu Leu Asp Gly Ser Asn Ser Val Gly Lys
      50              55              60
Gly Ser Phe Glu Arg Ser Lys His Phe Ala Ile Thr Val Cys Asp Gly
      65              70              75              80
Leu Asp Ile Ser Pro Glu Arg Val Arg Val Gly Ala Phe Gln Phe Ser
      85              90              95
Ser Thr Pro His Leu Glu Phe Pro Leu Asp Ser Phe Ser Thr Gln Gln
      100              105              110
Glu Val Lys Ala Arg Ile Lys Arg Met Val Phe Lys Gly Gly Arg Thr
      115              120              125
Glu Thr Glu Leu Ala Leu Lys Tyr Leu Leu His Arg Gly Leu Pro Gly
      130              135              140
Gly Arg Asn Ala Ser Val Pro Gln Ile Leu Ile Ile Val Thr Asp Gly
      145              150              155              160
Lys Ser Gln Gly Asp Val Ala Leu Pro Ser Lys Gln Leu Lys Glu Arg
      165              170              175
Gly Val Thr Val Phe Ala Val Gly Val Arg Phe Pro Arg Trp Glu Glu
      180              185              190
Leu His Ala Leu Ala Ser Glu Pro Arg Gly Gln His Val Leu Leu Ala
      195              200              205
Glu Gln Val Glu Asp Ala Thr Asn Gly Leu Phe Ser Thr Leu Ser Ser
      210              215              220
Ser Ala Ile Cys Ser Ser Ala Thr Pro Asp Cys Arg Val Glu Ala His
      225              230              235              240
Pro Cys Glu His Arg Thr Leu Glu Met Val Arg Glu Phe Ala Gly Asn
      245              250              255

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Ala Pro Cys Trp Arg Gly Ser Arg Arg Thr Leu Ala Val Leu Ala Ala
 260 265 270
 His Cys Pro Phe Tyr Ser Trp Lys Arg Val Phe Leu Thr His Pro Ala
 275 280 285
 Thr Cys Tyr Arg Thr Thr Cys Pro Gly Pro Cys Asp Ser Gln Pro Cys
 290 295 300
 Gln Asn Gly Gly Thr Cys Val Pro Glu Gly Leu Asp Gly Tyr Gln Cys
 305 310 315 320
 Leu Cys Pro Leu Ala Phe Gly Gly Glu Ala Asn Cys Ala Leu Lys Leu
 325 330 335
 Ser Leu Glu Cys Arg Val Asp Leu Leu Phe Leu Leu Asp Ser Ser Ala
 340 345 350
 Gly Thr Thr Leu Asp Gly Phe Leu Arg Ala Lys Val Phe Val Lys Arg
 355 360 365
 Phe Val Arg Ala Val Leu Ser Glu Asp Ser Arg Ala Arg Val Gly Val
 370 375 380
 Ala Thr Tyr Ser Arg Glu Leu Leu Val Ala Val Pro Val Gly Glu Tyr
 385 390 395 400
 Gln Asp Val Pro Asp Leu Val Trp Ser Leu Asp Gly Ile Pro Phe Arg
 405 410 415
 Gly Gly Pro Thr Leu Thr Gly Ser Ala Leu Arg Gln Ala Ala Glu Arg
 420 425 430
 Gly Phe Gly Ser Ala Thr Arg Thr Gly Gln Asp Arg Pro Arg Arg Val
 435 440 445
 Val Val Leu Leu Thr Glu Ser His Ser Glu Asp Glu Val Ala Gly Pro
 450 455 460
 Ala Arg His Ala Arg Ala Arg Glu Leu Leu Leu Leu Gly Val Gly Ser
 465 470 475 480
 Glu Ala Val Arg Ala Glu Leu Glu Glu Ile Thr Gly Ser Pro Lys His
 485 490 495
 Val Met Val Tyr Ser Asp Pro Gln Asp Leu Phe Asn Gln Ile Pro Glu
 500 505 510
 Leu Gln Gly Lys Leu Cys Ser Arg Gln Arg Pro Gly Cys Arg Thr Gln
 515 520 525
 Ala Leu Asp Leu Val Phe Met Leu Asp Thr Ser Ala Ser Val Gly Pro

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 530 | | | | | 535 | | | | | 540 | | | | | | | | | |
| Glu | Asn | Phe | Ala | Gln | Met | Gln | Ser | Phe | Val | Arg | Ser | Cys | Ala | Leu | Gln | | | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | | | |
| Phe | Glu | Val | Asn | Pro | Asp | Val | Thr | Gln | Val | Gly | Leu | Val | Val | Tyr | Gly | | | | |
| 565 | | | | | 570 | | | | | 575 | | | | | | | | | |
| Ser | Gln | Val | Gln | Thr | Ala | Phe | Gly | Leu | Asp | Thr | Lys | Pro | Thr | Arg | Ala | | | | |
| 580 | | | | | 585 | | | | | 590 | | | | | | | | | |
| Ala | Met | Leu | Arg | Ala | Ile | Ser | Gln | Ala | Pro | Tyr | Leu | Gly | Gly | Val | Gly | | | | |
| 595 | | | | | 600 | | | | | 605 | | | | | | | | | |
| Ser | Ala | Gly | Thr | Ala | Leu | Leu | His | Ile | Tyr | Asp | Lys | Val | Met | Thr | Val | | | | |
| 610 | | | | | 615 | | | | | 620 | | | | | | | | | |
| Gln | Arg | Gly | Ala | Arg | Pro | Gly | Val | Pro | Lys | Ala | Val | Val | Val | Leu | Thr | | | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | | | |
| Gly | Gly | Arg | Gly | Ala | Glu | Asp | Ala | Ala | Val | Pro | Ala | Gln | Lys | Leu | Arg | | | | |
| 645 | | | | | 650 | | | | | 655 | | | | | | | | | |
| Asn | Asn | Gly | Ile | Ser | Val | Leu | Val | Val | Gly | Val | Gly | Pro | Val | Leu | Ser | | | | |
| 660 | | | | | 665 | | | | | 670 | | | | | | | | | |
| Glu | Gly | Leu | Arg | Arg | Leu | Ala | Gly | Pro | Arg | Asp | Ser | Leu | Ile | His | Val | | | | |
| 675 | | | | | 680 | | | | | 685 | | | | | | | | | |
| Ala | Ala | Tyr | Ala | Asp | Leu | Arg | Tyr | His | Gln | Asp | Val | Leu | Ile | Glu | Trp | | | | |
| 690 | | | | | 695 | | | | | 700 | | | | | | | | | |
| Leu | Cys | Gly | Gly | Glu | Trp | Gly | Asn | Pro | His | Pro | Gln | Gly | Cys | Pro | His | | | | |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 | | | | |
| Gly | Arg | Pro | Ser | Ala | | | | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | | | | | | | | |

<210> 2894

<211> 689

<212> PRT

<213> Homo sapiens

<400> 2894

Met Ser Phe Cys Thr Ser Gln Ser Arg Gly Phe Gly Leu Ser Pro Thr
1 5 10 15
Val Gly Leu Thr Ala Phe Lys Pro Phe Phe Val Asp Leu Thr Leu Pro

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 |
| Tyr Ser Val Val Arg Gly Glu Ser Phe Arg Leu Thr Ala Thr Ile Phe | | | | | |
| 35 | | 40 | | 45 | |
| Asn Tyr Leu Lys Asp Cys Ile Arg Val Gln Thr Asp Leu Ala Lys Ser | | | | | |
| 50 | | 55 | | 60 | |
| His Glu Tyr Gln Leu Glu Ser Trp Ala Asp Ser Gln Thr Ser Ser Cys | | | | | |
| 65 | | 70 | | 75 | 80 |
| Leu Cys Ala Asp Glu Ala Lys Thr His His Trp Asn Ile Thr Ala Val | | | | | |
| | 85 | | 90 | | 95 |
| Lys Leu Gly His Ile Asn Phe Thr Ile Ser Thr Lys Ile Leu Asp Ser | | | | | |
| | 100 | | 105 | | 110 |
| Asn Glu Pro Cys Gly Gly Gln Lys Gly Phe Val Pro Gln Lys Gly Arg | | | | | |
| | 115 | | 120 | | 125 |
| Ser Asp Thr Leu Ile Lys Pro Val Leu Val Lys Pro Glu Gly Val Leu | | | | | |
| | 130 | | 135 | | 140 |
| Val Glu Lys Thr His Ser Ser Leu Leu Cys Pro Lys Gly Lys Val Ala | | | | | |
| 145 | | 150 | | 155 | 160 |
| Ser Glu Ser Val Ser Leu Glu Leu Pro Val Asp Ile Val Pro Asp Ser | | | | | |
| | 165 | | 170 | | 175 |
| Thr Lys Ala Tyr Val Thr Val Leu Gly Asp Ile Met Gly Thr Ala Leu | | | | | |
| | 180 | | 185 | | 190 |
| Gln Asn Leu Asp Gly Leu Val Gln Met Pro Ser Gly Cys Gly Glu Gln | | | | | |
| | 195 | | 200 | | 205 |
| Asn Met Val Leu Phe Ala Pro Ile Ile Tyr Val Leu Gln Tyr Leu Glu | | | | | |
| | 210 | | 215 | | 220 |
| Lys Ala Gly Leu Leu Thr Glu Glu Ile Arg Ser Arg Ala Val Gly Phe | | | | | |
| 225 | | 230 | | 235 | 240 |
| Leu Glu Ile Gly Tyr Gln Lys Glu Leu Met Tyr Lys His Ser Asn Gly | | | | | |
| | 245 | | 250 | | 255 |
| Ser Tyr Ser Ala Phe Gly Glu Arg Asp Gly Asn Gly Asn Thr Trp Leu | | | | | |
| | 260 | | 265 | | 270 |
| Thr Ala Phe Val Thr Lys Cys Phe Gly Gln Ala Gln Lys Phe Ile Phe | | | | | |
| | 275 | | 280 | | 285 |
| Ile Asp Pro Lys Asn Ile Gln Asp Ala Leu Lys Trp Met Ala Gly Asn | | | | | |
| | 290 | | 295 | | 300 |
| Gln Leu Pro Ser Gly Cys Tyr Ala Asn Val Gly Asn Leu Leu His Thr | | | | | |

305 310 315 320
 Ala Met Lys Gly Gly Val Asp Asp Glu Val Ser Leu Thr Ala Tyr Val
 325 330 335
 Thr Ala Ala Leu Leu Glu Met Gly Lys Asp Val Asp Asp Pro Met Val
 340 345 350
 Ser Gln Gly Leu Trp Cys Leu Lys Asn Ser Ala Thr Ser Thr Thr Asn
 355 360 365
 Leu Tyr Thr Gln Ala Leu Leu Ala Tyr Ile Phe Ser Leu Ala Gly Glu
 370 375 380
 Met Asp Ile Arg Asn Ile Leu Leu Lys Gln Leu Asp Gln Gln Ala Ile
 385 390 395 400
 Ile Ser Gly Glu Ser Ile Tyr Trp Ser Gln Lys Pro Thr Pro Ser Ser
 405 410 415
 Asn Ala Ser Pro Trp Ser Glu Pro Ala Ala Val Asp Val Glu Leu Thr
 420 425 430
 Ala Tyr Ala Leu Leu Ala Gln Leu Thr Lys Pro Ser Leu Thr Gln Lys
 435 440 445
 Glu Ile Ala Lys Ala Thr Ser Ile Val Ala Trp Leu Ala Lys Gln Arg
 450 455 460
 Asn Ala Tyr Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu
 465 470 475 480
 Gln Ala Leu Ala Lys Tyr Ala Thr Thr Ala Tyr Val Pro Ser Glu Glu
 485 490 495
 Ile Asn Leu Val Val Lys Ser Thr Glu Asn Phe Gln Arg Thr Phe Asn
 500 505 510
 Ile Gln Ser Val Asn Arg Leu Val Phe Gln Gln Asp Thr Leu Pro Asn
 515 520 525
 Val Pro Gly Met Tyr Thr Leu Glu Ala Ser Gly Gln Gly Cys Val Tyr
 530 535 540
 Val Gln Thr Val Leu Arg Tyr Asn Ile Leu Pro Pro Thr Asn Met Lys
 545 550 555 560
 Thr Phe Ser Leu Ser Val Glu Ile Gly Lys Ala Arg Cys Glu Gln Pro
 565 570 575
 Thr Ser Pro Arg Ser Leu Thr Leu Thr Ile His Thr Ser Tyr Val Gly
 580 585 590
 Ser Arg Ser Ser Ser Asn Met Ala Ile Val Glu Val Lys Met Leu Ser

| | | |
|---|-----|-----|
| 595 | 600 | 605 |
| Gly Phe Ser Pro Met Glu Gly Thr Asn Gln Leu Leu Leu Gln Gln Pro | | |
| 610 | 615 | 620 |
| Leu Val Lys Lys Val Glu Phe Gly Thr Asp Thr Leu Asn Ile Tyr Leu | | |
| 625 | 630 | 635 |
| Asp Glu Leu Ile Lys Asn Thr Gln Thr Tyr Thr Phe Thr Ile Ser Gln | | |
| 645 | 650 | 655 |
| Ser Val Leu Val Thr Asn Leu Lys Pro Ala Thr Ile Lys Val Tyr Asp | | |
| 660 | 665 | 670 |
| Tyr Tyr Leu Pro Asp Glu Gln Ala Thr Ile Gln Tyr Ser Asp Pro Cys | | |
| 675 | 680 | 685 |
| Glu | | |

<210> 2895

<211> 954

<212> PRT

<213> Homo sapiens

<400> 2895

| | | |
|---|-----|-----|
| Met Glu Gly Gln Lys His Leu Asn Ser Lys Lys Lys Gly Leu Lys Ala | | |
| 1 | 5 | 10 |
| Ser Phe Ser Leu Ser Leu Thr Phe Thr Ser Arg Leu Ala Pro Asp Pro | | |
| 20 | 25 | 30 |
| Ser Leu Val Ile Tyr Ala Ile Phe Pro Ser Gly Gly Val Val Ala Asp | | |
| 35 | 40 | 45 |
| Lys Ile Gln Phe Ser Val Glu Met Cys Phe Asp Asn Gln Val Ser Leu | | |
| 50 | 55 | 60 |
| Gly Phe Ser Pro Ser Gln Gln Leu Pro Gly Ala Glu Val Glu Leu Gln | | |
| 65 | 70 | 75 |
| Leu Gln Ala Ala Pro Gly Ser Leu Cys Ala Leu Arg Ala Val Asp Glu | | |
| 85 | 90 | 95 |
| Ser Val Leu Leu Leu Arg Pro Asp Arg Glu Leu Ser Asn Arg Ser Val | | |
| 100 | 105 | 110 |
| Tyr Gly Met Phe Pro Phe Trp Tyr Gly His Tyr Pro Tyr Gln Val Ala | | |

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Glu Tyr Asp Gln Cys Pro Val Ser Gly Pro Trp Asp Phe Pro Gln Pro | | |
| 130 | 135 | 140 |
| Leu Ile Asp Pro Met Pro Gln Gly His Ser Ser Gln Arg Ser Ile Ile | | |
| 145 | 150 | 155 |
| 160 | | |
| Trp Arg Pro Ser Phe Ser Glu Gly Thr Asp Leu Phe Ser Phe Phe Arg | | |
| 165 | 170 | 175 |
| Asp Val Gly Leu Lys Ile Leu Ser Asn Ala Lys Ile Lys Lys Pro Val | | |
| 180 | 185 | 190 |
| Asp Cys Ser His Arg Ser Pro Glu Tyr Ser Thr Ala Met Gly Ala Gly | | |
| 195 | 200 | 205 |
| Gly Gly His Pro Glu Ala Phe Glu Ser Ser Thr Pro Leu His Gln Ala | | |
| 210 | 215 | 220 |
| Glu Asp Ser Gln Val Arg Gln Tyr Leu Pro Glu Thr Trp Leu Trp Asp | | |
| 225 | 230 | 235 |
| 240 | | |
| Leu Phe Pro Ile Gly Asn Ser Gly Lys Glu Ala Val His Val Thr Val | | |
| 245 | 250 | 255 |
| Pro Asp Ala Ile Thr Glu Trp Lys Ala Met Ser Phe Cys Thr Ser Gln | | |
| 260 | 265 | 270 |
| Ser Arg Gly Phe Gly Leu Ser Pro Thr Val Gly Leu Thr Ala Phe Lys | | |
| 275 | 280 | 285 |
| Pro Phe Phe Val Asp Leu Thr Leu Pro Tyr Ser Val Val Arg Gly Glu | | |
| 290 | 295 | 300 |
| Ser Phe Arg Leu Thr Ala Thr Ile Phe Asn Tyr Leu Lys Asp Cys Ile | | |
| 305 | 310 | 315 |
| 320 | | |
| Arg Val Gln Thr Asp Leu Ala Lys Ser His Glu Tyr Gln Leu Glu Ser | | |
| 325 | 330 | 335 |
| Trp Ala Asp Ser Gln Thr Ser Ser Cys Leu Cys Ala Asp Glu Ala Lys | | |
| 340 | 345 | 350 |
| Thr His His Trp Asn Ile Thr Ala Val Lys Leu Gly His Ile Asn Phe | | |
| 355 | 360 | 365 |
| Thr Ile Ser Thr Lys Ile Leu Asp Ser Asn Glu Pro Cys Gly Gly Gln | | |
| 370 | 375 | 380 |
| Lys Gly Phe Val Pro Gln Lys Gly Arg Ser Asp Thr Leu Ile Lys Pro | | |
| 385 | 390 | 395 |
| 400 | | |
| Val Leu Val Lys Pro Glu Gly Val Leu Val Glu Lys Thr His Ser Ser | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 405 | | 410 | | 415 | | | | | | | | | | |
| Leu | Leu | Cys | Pro | Lys | Gly | Lys | Val | Ala | Ser | Glu | Ser | Val | Ser | Leu | Glu |
| | 420 | | | | | | | 425 | | | | | | 430 | |
| Leu | Pro | Val | Asp | Ile | Val | Pro | Asp | Ser | Thr | Lys | Ala | Tyr | Val | Thr | Val |
| | 435 | | | | | | | 440 | | | | | | 445 | |
| Leu | Gly | Asp | Ile | Met | Gly | Thr | Ala | Leu | Gln | Asn | Leu | Asp | Gly | Leu | Val |
| | 450 | | | | | | | 455 | | | | | | 460 | |
| Gln | Met | Pro | Ser | Gly | Cys | Gly | Glu | Gln | Asn | Met | Val | Leu | Phe | Ala | Pro |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ile | Ile | Tyr | Val | Leu | Gln | Tyr | Leu | Glu | Lys | Ala | Gly | Leu | Leu | Thr | Glu |
| | | | 485 | | | | | 490 | | | | | | | 495 |
| Glu | Ile | Arg | Ser | Arg | Ala | Val | Gly | Phe | Leu | Glu | Ile | Gly | Tyr | Gln | Lys |
| | 500 | | | | | | | 505 | | | | | | 510 | |
| Glu | Leu | Met | Tyr | Lys | His | Ser | Asn | Gly | Ser | Tyr | Ser | Ala | Phe | Gly | Glu |
| | 515 | | | | | | | 520 | | | | | | 525 | |
| Arg | Asp | Gly | Asn | Gly | Asn | Thr | Trp | Leu | Thr | Ala | Phe | Val | Thr | Lys | Cys |
| | 530 | | | | | | | 535 | | | | | | 540 | |
| Phe | Gly | Gln | Ala | Gln | Lys | Phe | Ile | Phe | Ile | Asp | Pro | Lys | Asn | Ile | Gln |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Asp | Ala | Leu | Lys | Trp | Met | Ala | Gly | Asn | Gln | Leu | Pro | Ser | Gly | Cys | Tyr |
| | | | 565 | | | | | 570 | | | | | | 575 | |
| Ala | Asn | Val | Gly | Asn | Leu | Leu | His | Thr | Ala | Met | Lys | Gly | Gly | Val | Asp |
| | 580 | | | | | | | 585 | | | | | | 590 | |
| Asp | Glu | Val | Ser | Leu | Thr | Ala | Tyr | Val | Thr | Ala | Ala | Leu | Leu | Glu | Met |
| | 595 | | | | | | | 600 | | | | | | 605 | |
| Gly | Lys | Asp | Val | Asp | Asp | Pro | Met | Val | Ser | Gln | Gly | Leu | Trp | Cys | Leu |
| | 610 | | | | | | | 615 | | | | | | 620 | |
| Lys | Asn | Ser | Ala | Thr | Ser | Thr | Thr | Asn | Leu | Tyr | Thr | Gln | Ala | Leu | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Ala | Tyr | Ile | Phe | Ser | Leu | Ala | Gly | Glu | Met | Asp | Ile | Arg | Asn | Ile | Leu |
| | | | 645 | | | | | 650 | | | | | | 655 | |
| Leu | Lys | Gln | Leu | Asp | Gln | Gln | Ala | Ile | Ile | Ser | Gly | Glu | Ser | Ile | Tyr |
| | 660 | | | | | | | 665 | | | | | | 670 | |
| Trp | Ser | Gln | Lys | Pro | Thr | Pro | Ser | Ser | Asn | Ala | Ser | Pro | Trp | Ser | Glu |
| | 675 | | | | | | | 680 | | | | | | 685 | |
| Pro | Ala | Ala | Val | Asp | Val | Glu | Leu | Thr | Ala | Tyr | Ala | Leu | Leu | Ala | Gln |

| | | |
|---|---|-----|
| 690 | 695 | 700 |
| Leu Thr Lys Pro Ser | Leu Thr Gln Lys Glu Ile Ala Lys Ala Thr Ser | |
| 705 | 710 | 715 |
| Ile Val Ala Trp Leu | Ala Lys Gln Arg Asn Ala Tyr Gly Gly Phe Ser | 720 |
| | 725 | 730 |
| Ser Thr Gln Asp Thr Val Val Ala Leu Gln Ala Pro Ala Lys Tyr Ala | | 735 |
| | 740 | 745 |
| Thr Thr Ala Tyr Val Pro Ser Glu Glu Ile Asn Leu Val Val Lys Ser | | 750 |
| | 755 | 760 |
| Thr Glu Asn Phe Gln Arg Thr Phe Asn Ile Gln Ser Val Asn Arg Leu | | 765 |
| | 770 | 775 |
| Val Phe Gln Gln Asp Thr Leu Pro Asn Val Pro Gly Met Tyr Thr Leu | | 780 |
| 785 | 790 | 795 |
| Glu Ala Ser Gly Gln Gly Cys Val Tyr Val Gln Thr Val Leu Arg Tyr | | 800 |
| | 805 | 810 |
| Asn Ile Leu Pro Pro Thr Asn Met Lys Thr Phe Ser Leu Ser Val Glu | | 815 |
| | 820 | 825 |
| Ile Gly Lys Ala Arg Cys Glu Gln Pro Thr Ser Pro Arg Ser Leu Thr | | 830 |
| | 835 | 840 |
| Leu Thr Ile His Thr Ser Tyr Val Gly Ser Arg Ser Ser Ser Asn Met | | 845 |
| | 850 | 855 |
| Ala Ile Val Glu Val Lys Met Leu Ser Gly Phe Ser Pro Met Glu Gly | | 860 |
| 865 | 870 | 875 |
| Thr Asn Gln Leu Leu Leu Gln Gln Pro Leu Val Lys Lys Val Glu Phe | | 880 |
| | 885 | 890 |
| Gly Thr Asp Thr Leu Asn Ile Tyr Leu Asp Glu Leu Ile Lys Asn Thr | | 895 |
| | 900 | 905 |
| Gln Thr Tyr Thr Phe Thr Ile Ser Gln Ser Val Leu Val Thr Asn Leu | | 910 |
| | 915 | 920 |
| Lys Pro Ala Thr Ile Lys Val Tyr Asp Tyr Tyr Leu Pro Asp Glu Gln | | 925 |
| | 930 | 935 |
| Ala Thr Ile Gln Tyr Ser Asp Pro Cys Glu | | 940 |
| 945 | 950 | |

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2896

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Met Pro Glu Ser Leu Asn Glu Glu Arg Trp Trp Ile Ser Phe Ser Ala
  1                   5                   10                   15
Lys Lys Phe Ala Glu Ala Leu Gly Ser Thr Glu Ala Lys Ala Leu Leu
                   20                   25                   30
Tyr Gln Lys Phe Glu Gly His Ala Asn Asp Leu Tyr Val Glu Gly Leu
                   35                   40                   45
Pro Glu Asn Ile Pro Phe Arg Ser Pro Ser Trp Tyr Gly Ile Pro Arg
                   50                   55                   60
Leu Glu Asn Ile Ile Gln Val Gly Asn Gln Ile Lys Phe Leu Ile Lys
                   65                   70                   75                   80
Ser Asn Ser Ser Arg Thr Pro Leu Ser Pro Ser Arg Leu Ser Ser Ser
                   85                   90                   95
Ser Thr Thr Pro Pro Gln Lys Pro
                   100

```

<210> 2897

<211> 754

<212> PRT

<213> Homo sapiens

<400> 2897

```

Met Arg Ser Gln Asn Pro Glu Lys Ser Ala Arg Ile Pro Asp Ser Ile
  1                   5                   10                   15
Ala Val Ile Gln Gln Leu Ser Pro Lys Glu Gln Arg Ala Phe Glu Leu
                   20                   25                   30
Lys Leu Lys Glu Ile Lys Glu Gln His Lys Asn Phe Glu Asp Phe Tyr
                   35                   40                   45
Ser Phe Met Ile Met Lys Thr Asn Phe Asn Lys Glu Tyr Ile Glu Asn
                   50                   55                   60
Val Val Arg Asn Ile Leu Lys Gly Gln Asn Ile Phe Thr Lys Glu Ala

```

| | | | |
|---|-----|-----|-----|
| 65 | 70 | 75 | 80 |
| Lys Leu Phe Ser Phe Leu Ala Leu Leu Asn Ser Tyr Val Pro Asp Thr | | | |
| | 85 | 90 | 95 |
| Thr Ile Ser Leu Ser Gln Cys Glu Lys Phe Leu Gly Ile Gly Asn Lys | | | |
| | 100 | 105 | 110 |
| Lys Ala Phe Trp Gly Thr Glu Lys Phe Glu Asp Lys Met Gly Thr Tyr | | | |
| | 115 | 120 | 125 |
| Ser Thr Ile Leu Ile Lys Thr Glu Val Ile Glu Cys Gly Asn Tyr Cys | | | |
| | 130 | 135 | 140 |
| Gly Val Arg Ile Ile His Ser Leu Ile Ala Glu Phe Ser Leu Glu Glu | | | |
| 145 | 150 | 155 | 160 |
| Leu Lys Lys Ser Tyr His Leu Asn Lys Ser Gln Ile Met Leu Asp Met | | | |
| | 165 | 170 | 175 |
| Leu Thr Glu Ser Leu Phe Phe Asp Thr Gly Met Gly Lys Ser Lys Phe | | | |
| | 180 | 185 | 190 |
| Leu Gln Asp Met His Thr Leu Leu Leu Thr Arg His Arg Asp Glu His | | | |
| | 195 | 200 | 205 |
| Glu Gly Glu Thr Gly Asn Trp Phe Ser Pro Phe Ile Glu Ala Leu His | | | |
| | 210 | 215 | 220 |
| Lys Asp Glu Gly Asn Glu Ala Val Glu Ala Val Leu Leu Glu Ser Ile | | | |
| 225 | 230 | 235 | 240 |
| His Arg Phe Asn Pro Asn Ala Phe Ile Cys Gln Ala Leu Ala Arg His | | | |
| | 245 | 250 | 255 |
| Phe Tyr Ile Lys Lys Lys Asp Phe Gly Asn Ala Leu Asn Trp Ala Lys | | | |
| | 260 | 265 | 270 |
| Gln Ala Lys Ile Ile Glu Pro Asp Asn Ser Tyr Ile Ser Asp Thr Leu | | | |
| | 275 | 280 | 285 |
| Gly Gln Val Tyr Lys Ser Lys Ile Arg Trp Trp Ile Glu Glu Asn Gly | | | |
| | 290 | 295 | 300 |
| Gly Asn Gly Asn Ile Ser Val Asp Asp Leu Ile Ala Leu Leu Asp Leu | | | |
| 305 | 310 | 315 | 320 |
| Ala Glu His Ala Ser Ser Ala Phe Lys Glu Ser Gln Gln Gln Ser Glu | | | |
| | 325 | 330 | 335 |
| Asp Arg Glu Tyr Glu Val Lys Glu Arg Leu Tyr Pro Lys Ser Lys Arg | | | |
| | 340 | 345 | 350 |

Arg Tyr Asp Thr Tyr Asn Ile Ala Gly Tyr Gln Gly Glu Ile Glu Val
 355 360 365
 Gly Leu Tyr Thr Ile Gln Ile Leu Gln Leu Ile Pro Phe Phe Asp Asn
 370 375 380
 Lys Asn Glu Leu Ser Lys Arg Tyr Met Val Asn Phe Val Ser Gly Ser
 385 390 395 400
 Ser Asp Ile Pro Gly Asp Pro Asn Asn Glu Tyr Lys Leu Ala Leu Glu
 405 410 415
 Asn Tyr Ile Pro Tyr Leu Thr Lys Leu Lys Phe Ser Leu Lys Lys Ser
 420 425 430
 Phe Asp Phe Phe Asp Glu Tyr Phe Val Leu Leu Lys Pro Arg Asn Asn
 435 440 445
 Ile Lys Gln Asn Glu Glu Ala Lys Thr Arg Arg Lys Val Ala Gly Tyr
 450 455 460
 Phe Lys Lys Tyr Val Asp Ile Phe Cys Leu Leu Glu Glu Ser Gln Asn
 465 470 475 480
 Asn Thr Gly Leu Gly Ser Lys Phe Ser Glu Pro Leu Gln Val Glu Arg
 485 490 495
 Cys Arg Arg Asn Leu Val Ala Leu Lys Ala Asp Lys Phe Ser Gly Leu
 500 505 510
 Leu Glu Tyr Leu Ile Lys Ser Gln Glu Asp Ala Ile Ser Thr Met Lys
 515 520 525
 Cys Ile Val Asn Glu Tyr Thr Phe Leu Leu Glu Gln Cys Thr Val Lys
 530 535 540
 Ile Gln Ser Lys Glu Lys Leu Asn Phe Ile Leu Ala Asn Ile Ile Leu
 545 550 555 560
 Ser Cys Ile Gln Pro Thr Ser Arg Leu Val Lys Pro Val Glu Lys Leu
 565 570 575
 Lys Asp Gln Leu Arg Glu Val Leu Gln Pro Ile Gly Leu Thr Tyr Gln
 580 585 590
 Phe Ser Glu Pro Tyr Phe Leu Ala Ser Leu Leu Phe Trp Pro Glu Asn
 595 600 605
 Gln Gln Leu Asp Gln His Ser Glu Gln Met Lys Glu Tyr Ala Gln Ala
 610 615 620
 Leu Lys Asn Ser Phe Lys Gly Gln Tyr Lys His Met His Arg Thr Lys
 625 630 635 640

Gln Pro Ile Ala Tyr Phe Phe Leu Gly Lys Gly Lys Arg Leu Glu Arg
 645 650 655
 Leu Val His Lys Gly Lys Ile Asp Gln Cys Phe Lys Lys Thr Pro Asp
 660 665 670
 Ile Asn Ser Leu Trp Gln Ser Gly Asp Val Trp Lys Glu Glu Lys Val
 675 680 685
 Gln Glu Leu Leu Leu Arg Leu Gln Gly Arg Ala Glu Asn Asn Cys Leu
 690 695 700
 Tyr Ile Glu Tyr Gly Ile Asn Glu Lys Ile Thr Ile Pro Ile Thr Pro
 705 710 715 720
 Ala Phe Leu Gly Gln Leu Arg Ser Gly Arg Ser Ile Glu Lys Val Ser
 725 730 735
 Phe Tyr Leu Gly Phe Ser Ile Gly Gly Pro Leu Ala Tyr Asp Ile Glu
 740 745 750
 Ile Val

<210> 2898

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2898

Met Val Phe Ala Phe Phe Phe Phe Leu Arg Gln Gly Leu Ala Leu Leu
 1 5 10 15
 Pro Arg Leu Glu Cys Asn Asp Thr Ile Ser Ala His Cys Asn Leu Tyr
 20 25 30
 Leu Leu Gly Ser Ser His Pro Pro Thr Ser Pro Ser Gln Val Ala Gly
 35 40 45
 Thr Thr Gly Thr His His His Thr Gln Arg Ser Phe Val Leu Tyr Ile
 50 55 60
 Glu Met Glu Phe Tyr His Val Ala Gln Thr Gly Leu Glu Leu Leu Ser
 65 70 75 80
 Ser Arg Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Arg Ile Thr Asp
 85 90 95

Val Ser His Arg Ser Arg Pro His Asn Ser Val Phe
 100 105

<210> 2899

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2899

Met Asp Thr Glu Asp Pro Leu Gln Gly Leu Pro Ile Thr Leu His Arg
 1 5 10 15
 Arg Ser Pro Phe Pro Glu Val Arg Leu Leu Ala Arg Gly Gly Val Val
 20 25 30
 Leu Cys Pro Ser Lys Leu Pro Ser Ser Pro Asn Val Arg Ser Ser Gly
 35 40 45
 Arg Pro Ser Cys Gly Arg Leu Arg Cys Gly Gly Lys Leu Ala Ala Cys
 50 55 60
 Pro Leu Ala Arg Ala Ser Arg Gly Leu Ala Leu Gly Gln Ser Arg Leu
 65 70 75 80
 Ala Gly Met Val Gln Gly Val Ser Leu Ala Ala Phe Cys Val Ile Trp
 85 90 95
 Gly Ala Ala Leu Gln Pro Arg Arg Gly Gly Arg
 100 105

<210> 2900

<211> 640

<212> PRT

<213> Homo sapiens

<400> 2900

Met Pro Lys Pro Pro Lys Pro Arg Asn Asn Leu Glu Asp Arg Tyr Asn
 1 5 10 15
 Pro Gly Ile Gln Gly Arg Arg Glu His Arg Pro Gly Pro Gly Arg Val
 20 25 30

Arg Ala Ala Ser Ser Pro Gly Gly Ser Ala Pro Arg Ala Glu Arg Arg
 35 40 45
 Leu Trp Gly Glu Gly Trp Glu Ser Gly Ala Ala Pro His Pro His Ser
 50 55 60
 Ser Arg Val Ser Ala Leu Arg Pro Cys Gly Val Val Gly Ala Trp Val
 65 70 75 80
 Gly Met Gly Val Cys Gln Arg Thr Arg Ala Pro Trp Lys Glu Lys Ser
 85 90 95
 Gln Leu Glu Arg Ala Ala Leu Gly Phe Arg Lys Gly Gly Ser Gly Met
 100 105 110
 Phe Ala Ser Gly Trp Asn Gln Thr Val Pro Ile Glu Glu Ala Gly Ser
 115 120 125
 Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Pro Leu Leu
 130 135 140
 Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Asp
 145 150 155 160
 Leu Ala Phe Ala Val Arg Ala Leu Cys Cys Lys Arg Ala Leu Arg Ala
 165 170 175
 Arg Ala Leu Ala Ala Ala Ala Asp Pro Glu Gly Pro Glu Gly Gly
 180 185 190
 Cys Ser Leu Ala Trp Arg Leu Ala Glu Leu Ala Gln Gln Arg Ala Ala
 195 200 205
 His Thr Phe Leu Ile His Gly Ser Arg Arg Phe Ser Tyr Ser Glu Ala
 210 215 220
 Glu Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly
 225 230 235 240
 Trp Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly
 245 250 255
 Glu Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser
 260 265 270
 Gly Ala Glu Phe Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala
 275 280 285
 Ala Ala Pro Leu Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala
 290 295 300
 Gly Pro Glu Phe Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu
 305 310 315 320

Ser Pro Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ala Ser Ser Pro
 610 615 620
 His Ser Trp Ala Met Leu Ala Gly Gln Ser Trp Pro Arg Gly Ser Cys
 625 630 635 640

<210> 2901

<211> 437

<212> PRT

<213> Homo sapiens

<400> 2901

Met Thr Thr Glu Gly Phe Asp Val Arg Ser Val Gly Asn Thr Leu Val
 1 5 10 15
 Leu His Gln Thr Ala Leu Val Glu Ala Phe Asn Leu Lys Ala Ala Ile
 20 25 30
 Glu Tyr Gln Leu Arg Asn Tyr Glu Val Ala Gln Glu Thr Leu Thr Asp
 35 40 45
 Met Pro Pro Arg Ala Glu Glu Glu Leu Asp Pro Val Thr Leu His Asn
 50 55 60
 Gln Ala Leu Met Asn Met Asp Ala Arg Pro Thr Glu Gly Phe Glu Lys
 65 70 75 80
 Leu Gln Phe Leu Leu Gln Gln Asn Pro Phe Pro Pro Glu Thr Phe Gly
 85 90 95
 Asn Leu Leu Leu Leu Tyr Cys Lys Tyr Glu Tyr Phe Asp Leu Ala Ala
 100 105 110
 Asp Val Leu Ala Glu Asn Ala His Leu Thr Tyr Lys Phe Leu Thr Pro
 115 120 125
 Tyr Leu Tyr Asp Phe Leu Asp Ala Leu Ile Thr Cys Gln Thr Ala Pro
 130 135 140
 Glu Glu Ala Phe Ile Lys Leu Asp Gly Leu Ala Gly Met Leu Thr Glu
 145 150 155 160
 Gln Leu Arg Arg Leu Thr Lys Gln Val Gln Glu Ala Arg His Asn Arg
 165 170 175
 Asp Asp Glu Ala Ile Lys Lys Ala Val Asn Glu Tyr Asp Glu Thr Met
 180 185 190

Glu Lys Tyr Ile Pro Val Leu Met Ala Gln Ala Lys Ile Tyr Trp Asn
 195 200 205
 Leu Glu Asn Tyr Pro Met Val Glu Lys Ile Phe Arg Lys Ser Val Glu
 210 215 220
 Phe Cys Asn Asp His Asp Val Trp Lys Leu Asn Val Ala His Val Leu
 225 230 235 240
 Phe Met Gln Glu Asn Lys Tyr Lys Glu Ala Ile Gly Phe Tyr Glu Pro
 245 250 255
 Ile Val Lys Lys His Tyr Asp Asn Ile Leu Asn Val Ser Ala Ile Val
 260 265 270
 Leu Ala Asn Leu Cys Val Ser Tyr Ile Met Thr Ser Gln Asn Glu Glu
 275 280 285
 Ala Glu Glu Leu Met Arg Lys Ile Glu Lys Glu Glu Glu Gln Leu Ser
 290 295 300
 Tyr Asp Asp Pro Asn Arg Lys Met Tyr His Leu Cys Ile Val Asn Leu
 305 310 315 320
 Val Ile Gly Thr Leu Tyr Cys Ala Lys Gly Asn Tyr Glu Phe Gly Ile
 325 330 335
 Ser Arg Val Ile Lys Ser Leu Glu Pro Tyr Asn Lys Lys Leu Gly Thr
 340 345 350
 Asp Thr Trp Tyr Tyr Ala Lys Arg Cys Phe Leu Ser Leu Leu Glu Asn
 355 360 365
 Met Ser Lys His Met Ile Val Ile His Asp Ser Val Ile Gln Glu Cys
 370 375 380
 Val Gln Phe Leu Gly His Cys Glu Leu Tyr Gly Thr Asn Ile Pro Ala
 385 390 395 400
 Val Ile Glu Gln Pro Leu Glu Glu Glu Arg Met His Val Gly Lys Asn
 405 410 415
 Thr Val Thr Asp Glu Ser Arg Gln Leu Lys Ala Leu Ile Tyr Glu Ile
 420 425 430
 Ile Gly Trp Asn Lys
 435

<210> 2902

<211> 1036

<212> PRT

<213> Homo sapiens

<400> 2902

Met Asp Asp Pro Ser Pro Cys Gly Thr Ser Glu Met Cys Pro Ala Ala
 1 5 10 15
 Leu Tyr Gly Phe Pro Ser Thr Gly Thr Ser Pro Pro Arg Pro Pro Ala
 20 25 30
 Asn Ser Thr Gly Thr Val Gln His Leu Arg Ser Asp Ser Phe Pro Gly
 35 40 45
 Ser His Arg Thr Glu Gln Thr Pro Asp Leu Val Gly Met Leu Leu Ser
 50 55 60
 Tyr Ser His Ser Glu Leu Pro Gln Arg Pro Pro Lys Pro Ala Ile Tyr
 65 70 75 80
 Ser Ser Val Thr Pro Arg Arg Asp Arg Arg Ser Gly Arg Asp Tyr Ser
 85 90 95

 Thr Val Ser Ala Ser Pro Thr Ala Leu Ser Thr Leu Lys Gln Asp Ser
 100 105 110
 Gln Glu Ser Ile Ser Asn Leu Glu Arg Pro Ser Ser Pro Pro Ser Ile
 115 120 125
 Gln Pro Trp Val Ser Pro His Asn Pro Ala Phe Ala Thr Glu Ser Pro
 130 135 140
 Ala Tyr Gly Ser Ser Pro Ser Phe Val Ser Met Glu Asp Val Arg Ile
 145 150 155 160
 His Glu Pro Leu Pro Pro Pro Pro Gln Arg Arg Asp Thr His Pro
 165 170 175
 Ser Val Val Glu Thr Asp Gly His Ala Arg Val Val Val Pro Thr Leu
 180 185 190
 Lys Gln His Ser His Pro Pro Pro Leu Ala Leu Gly Ser Gly Leu His
 195 200 205
 Ala Pro His Lys Gly Pro Leu Pro Gln Ala Ser Asp Pro Ala Val Ala
 210 215 220
 Arg Gln His Arg Pro Leu Pro Ser Thr Pro Asp Ser Ser His His Ala
 225 230 235 240
 Gln Ala Thr Pro Arg Trp Arg Tyr Asn Lys Pro Leu Pro Pro Thr Pro

245 250 255
 Asp Leu Pro Gln Pro His Leu Pro Pro Ile Ser Ala Pro Gly Ser Ser
 260 265 270
 Arg Ile Tyr Arg Pro Leu Pro Pro Leu Pro Ile Ile Asp Pro Pro Thr
 275 280 285
 Glu Pro Pro Pro Leu Pro Pro Lys Ser Arg Gly Arg Ser Arg Ser Thr
 290 295 300
 Arg Gly Gly His Met Asn Ser Gly Gly His Ala Lys Thr Arg Pro Ala
 305 310 315 320
 Cys Gln Asp Trp Thr Val Pro Leu Pro Ala Ser Ala Gly Arg Thr Ser
 325 330 335
 Trp Pro Pro Ala Thr Ala Arg Ser Thr Glu Ser Phe Thr Ser Thr Ser
 340 345 350
 Arg Ser Lys Ser Glu Val Ser Pro Gly Met Ala Phe Ser Asn Met Thr
 355 360 365
 Asn Phe Leu Cys Pro Ser Ser Pro Thr Thr Pro Trp Thr Pro Glu Leu
 370 375 380
 Gln Gly Pro Thr Ser Lys Asp Glu Ala Gly Val Ser Glu His Pro Glu
 385 390 395 400
 Ala Pro Ala Arg Glu Pro Leu Arg Arg Thr Thr Pro Gln Gln Gly Ala
 405 410 415
 Ser Gly Pro Gly Arg Ser Pro Val Gly Gln Ala Arg Gln Pro Glu Lys
 420 425 430
 Pro Ser His Leu His Leu Glu Lys Ala Ser Ser Trp Pro His Arg Arg
 435 440 445
 Asp Ser Gly Arg Pro Pro Gly Asp Ser Ser Gly Gln Ala Val Ala Pro
 450 455 460
 Ser Glu Gly Ala Asn Lys His Lys Gly Trp Ser Arg Gln Gly Leu Arg
 465 470 475 480
 Arg Pro Ser Ile Leu Pro Glu Gly Ser Ser Asp Ser Arg Gly Pro Ala
 485 490 495
 Val Glu Lys His Pro Gly Pro Ser Asp Thr Val Val Phe Arg Glu Lys
 500 505 510
 Lys Pro Lys Glu Val Met Gly Gly Phe Ser Arg Arg Cys Ser Lys Leu
 515 520 525
 Ile Asn Ser Ser Gln Leu Leu Tyr Gln Glu Tyr Ser Asp Val Val Leu

| | | | |
|---|-----|-----|-----|
| 530 | 535 | 540 | |
| Asn Lys Glu Ile Gln Ser Gln Gln Arg Leu Glu Ser Leu Ser Glu Thr | | | |
| 545 | 550 | 555 | 560 |
| Pro Gly Pro Ser Ser Pro Arg Gln Pro Arg Lys Ala Leu Val Ser Ser | | | |
| | 565 | 570 | 575 |
| Glu Ser Tyr Leu Gln Arg Leu Ser Met Ala Ser Ser Gly Ser Leu Trp | | | |
| | 580 | 585 | 590 |
| Gln Glu Ile Pro Val Val Arg Asn Ser Thr Val Leu Leu Ser Met Thr | | | |
| | 595 | 600 | 605 |
| His Glu Asp Gln Lys Leu Gln Glu Val Lys Phe Glu Leu Ile Val Ser | | | |
| 610 | 615 | 620 | |
| Glu Ala Ser Tyr Leu Arg Ser Leu Asn Ile Ala Val Asp His Phe Gln | | | |
| 625 | 630 | 635 | 640 |
| Leu Ser Thr Ser Leu Arg Ala Thr Leu Ser Asn Gln Glu His Gln Trp | | | |
| | 645 | 650 | 655 |
| Leu Phe Ser Arg Leu Gln Asp Val Arg Asp Val Ser Ala Thr Phe Leu | | | |
| | 660 | 665 | 670 |
| Ser Asp Leu Glu Glu Asn Phe Glu Asn Asn Ile Phe Ser Phe Gln Val | | | |
| | 675 | 680 | 685 |
| Cys Asp Val Val Leu Asn His Ala Pro Asp Phe Arg Arg Val Tyr Leu | | | |
| 690 | 695 | 700 | |
| Pro Tyr Val Thr Asn Gln Thr Tyr Gln Glu Arg Thr Phe Gln Ser Leu | | | |
| 705 | 710 | 715 | 720 |
| Met Asn Ser Asn Ser Asn Phe Arg Glu Val Leu Glu Lys Leu Glu Ser | | | |
| | 725 | 730 | 735 |
| Asp Pro Val Cys Gln Arg Leu Ser Leu Lys Ser Phe Leu Ile Leu Pro | | | |
| | 740 | 745 | 750 |
| Phe Gln Arg Ile Thr Arg Leu Lys Leu Leu Leu Gln Asn Ile Leu Lys | | | |
| | 755 | 760 | 765 |
| Arg Thr Gln Pro Gly Ser Ser Glu Glu Ala Glu Ala Thr Lys Ala His | | | |
| 770 | 775 | 780 | |
| His Ala Leu Glu Gln Leu Ile Arg Asp Cys Asn Asn Asn Val Gln Ser | | | |
| 785 | 790 | 795 | 800 |
| Met Arg Arg Thr Glu Glu Leu Ile Tyr Leu Ser Gln Lys Ile Glu Phe | | | |
| | 805 | 810 | 815 |
| Glu Cys Lys Ile Phe Pro Leu Ile Ser Gln Ser Arg Trp Leu Val Lys | | | |

| | | | |
|---|------|------|-----|
| 820 | 825 | 830 | |
| Ser Gly Glu Leu Thr Ala Leu Glu Phe Ser Ala Ser Pro Gly Leu Arg | | | |
| 835 | 840 | 845 | |
| Arg Lys Leu Asn Thr Arg Pro Val His Leu His Leu Phe Asn Asp Cys | | | |
| 850 | 855 | 860 | |
| Leu Leu Leu Ser Arg Pro Arg Glu Gly Ser Arg Phe Leu Val Phe Asp | | | |
| 865 | 870 | 875 | 880 |
| His Ala Pro Phe Ser Ser Ile Arg Gly Glu Lys Cys Glu Met Lys Leu | | | |
| 885 | 890 | 895 | |
| His Gly Pro His Lys Asn Leu Phe Arg Leu Phe Leu Arg Gln Asn Thr | | | |
| 900 | 905 | 910 | |
| Gln Gly Ala Gln Ala Glu Phe Leu Phe Arg Thr Glu Thr Gln Ser Glu | | | |
| 915 | 920 | 925 | |
| Lys Leu Arg Trp Ile Ser Ala Leu Ala Met Pro Arg Glu Glu Leu Asp | | | |
| 930 | 935 | 940 | |
| Leu Leu Glu Cys Tyr Asn Ser Pro Gln Val Gln Cys Leu Arg Ala Tyr | | | |
| 945 | 950 | 955 | 960 |
| Lys Pro Arg Glu Asn Asp Glu Leu Ala Leu Glu Lys Ala Asp Val Val | | | |
| 965 | 970 | 975 | |
| Met Val Thr Gln Gln Ser Ser Asp Gly Trp Leu Glu Gly Val Arg Leu | | | |
| 980 | 985 | 990 | |
| Ser Asp Gly Glu Arg Gly Trp Phe Pro Val Gln Gln Val Glu Phe Ile | | | |
| 995 | 1000 | 1005 | |
| Ser Asn Pro Glu Val Arg Ala Gln Asn Leu Lys Glu Ala His Arg Val | | | |
| 1010 | 1015 | 1020 | |
| Lys Thr Ala Lys Leu Gln Leu Val Glu Gln Gln Ala | | | |
| 1025 | 1030 | 1035 | |

<210> 2903

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2903

Met Ala Gln Leu Pro His His His Val Pro Glu Pro Ala Phe Arg Lys

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Val Glu Asp Ala Leu Gly Arg Thr Ser Asn Gln Leu Arg Ser Phe | | | |
| 20 | 25 | 30 | |
| Gln Glu Thr Phe Glu Lys Val Gln Pro Pro Pro Thr Thr Gln Leu Leu | | | |
| 35 | 40 | 45 | |
| Leu Pro Gly Ser Glu Arg Gln Val Gln Ala Leu Leu Ser Arg Tyr Gly | | | |
| 50 | 55 | 60 | |
| Pro Gly Lys Leu Tyr Gln Val Thr Ser Asn Ile Ser Gly Thr Gly Thr | | | |
| 65 | 70 | 75 | 80 |
| Leu Asp Leu Thr Leu Pro Arg Gly Gln Ile Val Ala Ile Leu Gln Asn | | | |
| 85 | 90 | 95 | |
| Lys Asp Thr Lys Gly Asn Ser Gly Arg Trp Leu Val Asp Thr Gly Gly | | | |
| 100 | 105 | 110 | |
| His Arg Gly Tyr Val Pro Ala Gly Lys Leu Gln Leu Tyr His Val Val | | | |
| 115 | 120 | 125 | |
| Pro Ser Ala Glu Glu Leu Arg Arg Gln Ala Gly Leu Asn Lys Asp Pro | | | |
| 130 | 135 | 140 | |
| Arg Cys Leu Thr Pro Glu Pro Ser Pro Ala Leu Val Pro Ser Ile Pro | | | |
| 145 | 150 | 155 | 160 |
| Thr Val Asn Gln Val Ile Ala Ala Tyr Pro Phe Val Ala Arg Ser Ser | | | |
| 165 | 170 | 175 | |
| His Glu Val Ser Leu Gln Ala Gly Gln Pro Val Thr Ile Leu Glu Ala | | | |
| 180 | 185 | 190 | |
| Gln Asp Lys Lys Gly Asn Pro Glu Trp Ser Leu Val Glu Val Asn Gly | | | |
| 195 | 200 | 205 | |
| Gln Arg Gly Tyr Val Pro Ser Gly Phe Leu Ala Arg Ala Arg Ser Pro | | | |
| 210 | 215 | 220 | |
| Val Leu Trp Gly Trp Ser Leu Pro Ser | | | |
| 225 | 230 | | |

<210> 2904

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2904

Met Phe Ser His Ile Leu Ala Asn Leu Glu Gln Gly Leu Ala Glu Asp
 1 5 10 15
 Gly Gly Met Ser Ser Val Thr Gln Glu Gly Arg Gln Ala Ser Ile Arg
 20 25 30
 Leu Trp Arg Ser Arg Leu Gly Arg Val Met Tyr Ser Met Ala Asn Cys
 35 40 45
 Leu Leu Leu Met Lys Asp Tyr Val Leu Ala Val Glu Ala Tyr His Ser
 50 55 60
 Val Ile Lys Tyr Tyr Pro Glu Gln Glu Pro Gln Leu Leu Ser Gly Ile
 65 70 75 80
 Gly Arg Ile Ser Leu Gln Ile Gly Asp Ile Lys Thr Ala Glu Lys Tyr
 85 90 95
 Phe Gln Asp Val Glu Lys Val Thr Gln Lys Leu Asp Gly Leu Gln Gly
 100 105 110
 Lys Ile Met Val Leu Met Asn Ser Ala Phe Leu His Leu Gly Gln Asn
 115 120 125
 Asn Phe Ala Glu Ala His Arg Phe Phe Thr Glu Ile Leu Arg Met Asp
 130 135 140
 Pro Arg Asn Ala Val Ala Asn Asn Asn Ala Ala Val Cys Leu Leu Tyr
 145 150 155 160
 Leu Gly Lys Leu Lys Asp Ser Leu Arg Gln Leu Glu Ala Met Val Gln
 165 170 175
 Gln Asp Pro Arg His Tyr Leu His Glu Ser Val Leu Phe Asn Leu Thr
 180 185 190
 Thr Met Tyr Glu Leu Glu Ser Ser Arg Ser Met Gln Lys Lys Gln Ala
 195 200 205
 Leu Leu Glu Ala Val Ala Gly Lys Glu Gly Asp Ser Phe Asn Thr Gln
 210 215 220
 Cys Leu Lys Leu Ala
 225

<210> 2905

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2905

```

Met Leu Leu Arg Lys Ala Ser Thr Cys Leu Lys Gly Gly Thr Ala Phe
 1             5             10            15
Asn Ser Gly His Ser Cys Cys Pro Leu Thr Ser Val Cys Gly Leu Ala
      20             25             30
Ala Ala Pro Gly Thr Gln Gln Glu Pro Pro Glu Gly Cys Gly Leu Cys
      35             40             45
Gly Gln Arg Asp Ser Leu Gln Leu Pro Pro Cys Pro Pro Ala Leu Arg
      50             55             60
Gly Asn Asn Ser Arg Ala Thr Ala Gly Pro Arg Leu Gln Ser His Leu
      65             70             75            80
Cys Cys His Asp His Ser Gln Glu Ala Leu Gly Thr Trp Val Trp Lys
      85             90             95
Ala Ser Arg Gln Gln Ser Cys Pro Val Ser Leu Gly Met Pro Glu Cys
      100            105            110
Arg Asn Ala Asn Val
      115

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<210> 2906

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2906

```

Met Cys Met Leu Arg Leu Leu Pro Glu His Gln Asn Gly Asn Ile Arg
 1             5             10            15
Val Phe Ile Leu Glu Ser Asn Leu Thr Ile Ile Met Asp Val Val Arg
      20             25             30
Leu Phe Lys Lys Ser Met Phe Lys Asp Ile Glu Ser Thr Lys Met Ala
      35             40             45
Ile Ser Asp Arg Leu Asp Lys Glu Asn Val Val His Ile His His Gly
      50             55             60
Ile Leu Cys Ser Arg Arg Lys Glu Arg Asp His Val Arg Cys Arg Asp

```

65 70 75 80
 Met Asp Gly Ala Gly Ser His Tyr Pro Gln Lys Thr Asn Pro Gly Thr
 85 90 95
 Glu Lys Gln Thr Pro His Val Leu Thr His Lys Trp Glu Leu Asn Thr
 100 105 110
 Glu Asn Thr Trp Asn Gln Gly Glu Glu Gln His Thr Leu Arg Pro Ala
 115 120 125
 Thr Ala Gly Gly Gly Ser Gly Glu Gly Glu His Gln Glu Asn Ser
 130 135 140

<210> 2907

<211> 1035

<212> PRT

<213> Homo sapiens

<400> 2907

Met Val Phe Leu Gln Asn His Val Arg Phe Phe Leu Glu Ser Leu Pro
 1 5 10 15
 Ala Phe Leu Arg Val Leu Ile Gln Ala Gly Ala Leu Cys Trp Ser Leu
 20 25 30
 Pro Glu Leu Ser Gln Gly Glu Val Gly Lys Gly Ala Cys Pro Ala Glu
 35 40 45
 Val Gly Lys His Arg Asp His Leu Pro Ser Ser Asp Pro Val Leu Met
 50 55 60
 Gln Ala Glu Ala Ser Val Val Met Cys Trp Val Ser Ser Glu Asp Arg
 65 70 75 80
 Ser Ala Leu Trp Ala Leu Val Thr Phe Tyr Gly Gly Asp Cys Gln Leu
 85 90 95
 Thr Leu Asn Lys Lys Cys Thr His Leu Ile Val Pro Glu Pro Lys Gly
 100 105 110
 Glu Lys Tyr Glu Cys Ala Leu Lys Arg Ala Ser Ile Lys Ile Val Thr
 115 120 125
 Pro Asp Trp Val Leu Asp Cys Val Ser Glu Lys Thr Lys Lys Asp Glu
 130 135 140

Ala Phe Tyr His Pro Arg Leu Ile Ile Tyr Glu Glu Glu Glu Glu Glu
 145 150 155 160
 Glu Glu Glu Glu Glu Glu Val Glu Asn Glu Glu Gln Asp Ser Gln Asn
 165 170 175
 Glu Gly Ser Thr Asp Glu Lys Ser Ser Pro Ala Ser Ser Gln Glu Gly
 180 185 190
 Ser Pro Ser Gly Asp Gln Gln Phe Ser Pro Lys Ser Asn Thr Glu Lys
 195 200 205
 Ser Lys Gly Glu Leu Met Phe Asp Asp Ser Ser Asp Ser Ser Pro Glu
 210 215 220
 Lys Gln Glu Arg Asn Leu Asn Trp Thr Pro Ala Glu Val Pro Gln Leu
 225 230 235 240
 Ala Ala Ala Lys Arg Arg Leu Pro Gln Gly Lys Glu Pro Gly Leu Ile
 245 250 255
 Asn Leu Cys Ala Asn Val Pro Pro Val Pro Gly Asn Ile Leu Pro Pro
 260 265 270
 Glu Val Arg Gly Asn Leu Met Ala Ala Gly Gln Asn Leu Gln Ser Ser
 275 280 285
 Glu Arg Ser Glu Met Ile Ala Thr Trp Ser Pro Ala Val Arg Thr Leu
 290 295 300
 Arg Asn Ile Thr Asn Asn Ala Asp Ile Gln Gln Met Asn Arg Pro Ser
 305 310 315 320
 Asn Val Ala His Ile Leu Gln Thr Leu Ser Ala Pro Thr Lys Asn Leu
 325 330 335
 Glu Gln Gln Val Asn His Ser Gln Gln Gly His Thr Asn Ala Asn Ala
 340 345 350
 Val Leu Phe Ser Gln Val Lys Val Thr Pro Glu Thr His Met Leu Gln
 355 360 365
 Gln Gln Gln Gln Ala Gln Gln Gln Gln Gln Gln His Pro Val Leu His
 370 375 380
 Leu Gln Pro Gln Gln Ile Met Gln Leu Gln Gln Gln Gln Gln Gln Gln
 385 390 395 400
 Ile Ser Gln Gln Pro Tyr Pro Gln Gln Pro Pro His Pro Phe Ser Gln
 405 410 415
 Gln Gln Gln Gln Gln Gln Gln Ala His Pro His Gln Phe Ser Gln Gln

| | | |
|---|-----|-----|
| 420 | 425 | 430 |
| Gln Leu Gln Phe Pro Gln Gln Gln Leu His Pro Pro Gln Gln Leu His | | |
| 435 | 440 | 445 |
| Arg Pro Gln Gln Gln Leu Gln Pro Phe Gln Gln Gln His Ala Leu Gln | | |
| 450 | 455 | 460 |
| Gln Gln Phe His Gln Leu Gln Gln His Gln Leu Gln Gln Gln Gln Leu | | |
| 465 | 470 | 475 |
| Ala Gln Leu Gln Gln Gln His Ser Leu Leu Gln Gln Gln Gln Gln Gln | | |
| 485 | 490 | 495 |
| Gln Ile Gln Gln Gln Gln Leu Gln Arg Met His Gln Gln Gln Gln Gln | | |
| 500 | 505 | 510 |
| Gln Gln Met Gln Ser Gln Thr Ala Pro His Leu Ser Gln Thr Ser Gln | | |
| 515 | 520 | 525 |
| Ala Leu Gln His Gln Val Pro Pro Gln Gln Pro Pro Gln Gln Gln Gln | | |
| 530 | 535 | 540 |
| Gln Gln Gln Pro Pro Pro Ser Pro Gln Gln His Gln Leu Phe Gly His | | |
| 545 | 550 | 555 |
| Asp Pro Ala Val Glu Ile Pro Glu Glu Gly Phe Leu Leu Gly Cys Val | | |
| 565 | 570 | 575 |
| Phe Ala Ile Ala Asp Tyr Pro Glu Gln Met Ser Asp Lys Gln Leu Leu | | |
| 580 | 585 | 590 |
| Ala Thr Trp Lys Arg Ile Ile Gln Ala His Gly Gly Thr Val Asp Pro | | |
| 595 | 600 | 605 |
| Thr Phe Thr Ser Arg Cys Thr His Leu Leu Cys Glu Ser Gln Val Ser | | |
| 610 | 615 | 620 |
| Ser Ala Tyr Ala Gln Ala Ile Arg Glu Arg Lys Arg Cys Val Thr Ala | | |
| 625 | 630 | 635 |
| His Trp Leu Asn Thr Val Leu Lys Lys Lys Lys Met Val Pro Pro His | | |
| 645 | 650 | 655 |
| Arg Ala Leu His Phe Pro Val Ala Phe Pro Pro Gly Gly Lys Pro Cys | | |
| 660 | 665 | 670 |
| Ser Gln His Ile Ile Ser Val Thr Gly Phe Val Asp Ser Asp Arg Asp | | |
| 675 | 680 | 685 |
| Asp Leu Lys Leu Met Ala Tyr Leu Ala Gly Ala Lys Tyr Thr Gly Tyr | | |
| 690 | 695 | 700 |
| Leu Cys Arg Ser Asn Thr Val Leu Ile Cys Lys Glu Pro Thr Gly Leu | | |

| | | | |
|---|-----|-----|-----|
| 705 | 710 | 715 | 720 |
| Lys Tyr Glu Lys Ala Lys Glu Trp Arg Ile Pro Cys Val Asn Ala Gln | | | |
| 725 | 730 | 735 | |
| Trp Leu Gly Asp Ile Leu Leu Gly Asn Phe Glu Ala Leu Arg Gln Ile | | | |
| 740 | 745 | 750 | |
| Gln Tyr Ser Arg Tyr Thr Ala Phe Ser Leu Gln Asp Pro Phe Ala Pro | | | |
| 755 | 760 | 765 | |
| Thr Gln His Leu Val Leu Asn Leu Leu Asp Ala Trp Arg Val Pro Leu | | | |
| 770 | 775 | 780 | |
| Lys Val Ser Ala Glu Leu Leu Met Ser Ile Arg Leu Pro Pro Lys Leu | | | |
| 785 | 790 | 795 | 800 |
| Lys Gln Asn Glu Val Ala Asn Val Gln Pro Ser Ser Lys Arg Ala Arg | | | |
| 805 | 810 | 815 | |
| Ile Glu Asp Val Pro Pro Pro Thr Lys Lys Leu Thr Pro Glu Leu Thr | | | |
| 820 | 825 | 830 | |
| Pro Phe Val Leu Phe Thr Gly Phe Glu Pro Val Gln Val Gln Gln Tyr | | | |
| 835 | 840 | 845 | |
| Ile Lys Lys Leu Tyr Ile Leu Gly Gly Glu Val Ala Glu Ser Ala Gln | | | |
| 850 | 855 | 860 | |
| Lys Cys Thr His Leu Ile Ala Ser Lys Val Thr Arg Thr Val Lys Phe | | | |
| 865 | 870 | 875 | 880 |
| Leu Thr Ala Ile Ser Val Val Lys His Ile Val Thr Pro Glu Trp Leu | | | |
| 885 | 890 | 895 | |
| Glu Glu Cys Phe Arg Cys Gln Lys Phe Ile Asp Glu Gln Asn Tyr Ile | | | |
| 900 | 905 | 910 | |
| Leu Arg Asp Ala Glu Ala Glu Val Leu Phe Ser Phe Ser Leu Glu Glu | | | |
| 915 | 920 | 925 | |
| Ser Leu Lys Arg Ala His Val Ser Pro Leu Phe Lys Ala Lys Tyr Phe | | | |
| 930 | 935 | 940 | |
| Tyr Ile Thr Pro Gly Ile Cys Pro Ser Leu Ser Thr Met Lys Ala Ile | | | |
| 945 | 950 | 955 | 960 |
| Val Glu Cys Ala Gly Gly Lys Val Leu Ser Lys Gln Pro Ser Phe Arg | | | |
| 965 | 970 | 975 | |
| Lys Leu Met Glu His Lys Gln Asn Ser Ser Leu Ser Glu Ile Ile Leu | | | |
| 980 | 985 | 990 | |
| Ile Ser Cys Glu Asn Asp Leu His Leu Cys Arg Glu Tyr Phe Ala Arg | | | |

995 1000 1005
 Gly Ile Asp Val His Asn Ala Glu Phe Val Leu Thr Gly Val Leu Thr
 1010 1015 1020
 Gln Thr Leu Asp Tyr Glu Ser Tyr Lys Phe Asn
 1025 1030 1035

<210> 2908

<211> 1298

<212> PRT

<213> Homo sapiens

<400> 2908

Met Val Glu Leu Gln Asp Pro Asn Ser Asn Arg Ile Ala Gln Trp Leu
 1 5 10 15
 Glu Val Val Pro Glu Gln Gly Ile Val Asp Leu Ser Phe Gln Leu Ala
 20 25 30
 Pro Glu Ala Met Leu Gly Thr Tyr Thr Val Ala Val Ala Glu Gly Lys
 35 40 45
 Thr Phe Gly Thr Phe Ser Val Glu Glu Tyr Val Leu Pro Lys Phe Lys
 50 55 60
 Val Glu Val Val Glu Pro Lys Glu Leu Ser Thr Val Gln Glu Ser Phe
 65 70 75 80
 Leu Val Lys Ile Cys Cys Arg Tyr Thr Tyr Gly Lys Pro Met Leu Gly
 85 90 95
 Ala Val Gln Val Ser Val Cys Gln Lys Ala Asn Thr Tyr Trp Tyr Arg
 100 105 110
 Glu Val Glu Arg Glu Gln Leu Pro Asp Lys Cys Arg Asn Leu Ser Gly
 115 120 125
 Gln Thr Asp Lys Thr Gly Cys Phe Ser Ala Pro Val Asp Met Ala Thr
 130 135 140
 Phe Asp Leu Ile Gly Tyr Ala Tyr Ser His Gln Ile Asn Ile Val Ala
 145 150 155 160
 Thr Val Val Glu Glu Gly Thr Gly Val Glu Ala Asn Ala Thr Gln Asn
 165 170 175
 Ile Tyr Ile Ser Pro Gln Met Gly Ser Met Thr Phe Gly Asp Thr Ser

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Asn Phe Tyr His Pro Asn Phe Pro Phe Ser Gly Lys Ile Arg Val Arg | | |
| 195 | 200 | 205 |
| Gly His Asp Asp Ser Phe Leu Lys Asn His Leu Val Phe Leu Val Ile | | |
| 210 | 215 | 220 |
| Tyr Gly Thr Asn Gly Thr Phe Asn Gln Thr Leu Val Thr Asp Asn Asn | | |
| 225 | 230 | 235 |
| Gly Leu Ala Pro Phe Thr Leu Glu Thr Ser Gly Trp Asn Gly Thr Asp | | |
| 245 | 250 | 255 |
| Val Ser Leu Glu Gly Lys Phe Gln Met Glu Asp Leu Val Tyr Asn Pro | | |
| 260 | 265 | 270 |
| Glu Gln Val Pro Arg Tyr Tyr Gln Asn Ala Tyr Leu His Leu Arg Pro | | |
| 275 | 280 | 285 |
| Phe Tyr Ser Thr Thr Arg Ser Phe Leu Gly Ile His Arg Leu Asn Gly | | |
| 290 | 295 | 300 |
| Pro Leu Lys Cys Gly Gln Pro Gln Glu Val Leu Val Asp Tyr Tyr Ile | | |
| 305 | 310 | 315 |
| Asp Pro Ala Asp Ala Ser Pro Asp Gln Glu Ile Ser Phe Ser Tyr Tyr | | |
| 325 | 330 | 335 |
| Leu Ile Gly Lys Gly Ser Leu Val Met Glu Gly Gln Lys His Leu Asn | | |
| 340 | 345 | 350 |
| Ser Lys Lys Lys Gly Leu Lys Ala Ser Phe Ser Leu Ser Leu Thr Phe | | |
| 355 | 360 | 365 |
| Thr Ser Arg Leu Ala Pro Asp Pro Ser Leu Val Ile Tyr Ala Ile Phe | | |
| 370 | 375 | 380 |
| Pro Ser Gly Gly Val Val Ala Asp Lys Ile Gln Phe Ser Val Glu Met | | |
| 385 | 390 | 395 |
| Cys Phe Asp Asn Gln Val Ser Leu Gly Phe Ser Pro Ser Gln Gln Leu | | |
| 405 | 410 | 415 |
| Pro Gly Ala Glu Val Glu Leu Gln Leu Gln Ala Ala Pro Gly Ser Leu | | |
| 420 | 425 | 430 |
| Cys Ala Leu Arg Ala Val Asp Glu Ser Val Leu Leu Leu Arg Pro Asp | | |
| 435 | 440 | 445 |
| Arg Glu Leu Ser Asn Arg Ser Val Tyr Gly Met Phe Pro Phe Trp Tyr | | |
| 450 | 455 | 460 |
| Gly His Tyr Pro Tyr Gln Val Ala Glu Tyr Asp Gln Cys Pro Val Ser | | |

465 470 475 480
 Gly Pro Trp Asp Phe Pro Gln Pro Leu Ile Asp Pro Met Pro Gln Gly
 485 490 495
 His Ser Ser Gln Arg Ser Ile Ile Trp Arg Pro Ser Phe Ser Glu Gly
 500 505 510
 Thr Asp Leu Phe Ser Phe Phe Arg Asp Val Gly Leu Lys Ile Leu Ser
 515 520 525
 Asn Ala Lys Ile Lys Lys Pro Val Asp Cys Ser His Arg Ser Pro Glu
 530 535 540
 Tyr Ser Thr Ala Met Gly Ala Gly Gly Gly His Pro Glu Ala Phe Glu
 545 550 555 560
 Ser Ser Thr Pro Leu His Gln Ala Glu Asp Ser Gln Val Arg Gln Tyr
 565 570 575
 Leu Pro Glu Thr Trp Leu Trp Asp Leu Phe Pro Ile Gly Asn Ser Gly
 580 585 590
 Lys Glu Ala Val His Val Thr Val Pro Asp Ala Ile Thr Glu Trp Lys
 595 600 605
 Ala Met Ser Phe Cys Thr Ser Gln Ser Arg Gly Phe Gly Leu Ser Pro
 610 615 620
 Thr Val Gly Leu Thr Ala Phe Lys Pro Phe Phe Val Asp Leu Thr Leu
 625 630 635 640
 Pro Tyr Ser Val Val Arg Gly Glu Ser Phe Arg Leu Thr Ala Thr Ile
 645 650 655
 Phe Asn Tyr Leu Lys Asp Cys Ile Arg Val Gln Thr Asp Leu Ala Lys
 660 665 670
 Ser His Glu Tyr Gln Leu Glu Ser Trp Ala Asp Ser Gln Thr Ser Ser
 675 680 685
 Cys Leu Cys Ala Asp Glu Ala Lys Thr His His Trp Asn Ile Thr Ala
 690 695 700
 Val Lys Leu Gly His Ile Asn Phe Thr Ile Ser Thr Lys Ile Leu Asp
 705 710 715 720
 Ser Asn Glu Pro Cys Gly Gly Gln Lys Gly Phe Val Pro Gln Lys Gly
 725 730 735
 Arg Ser Asp Thr Leu Ile Lys Pro Val Leu Val Lys Pro Glu Gly Val
 740 745 750
 Leu Val Glu Lys Thr His Ser Ser Leu Leu Cys Pro Lys Gly Lys Val

| | | |
|---|------|------|
| 755 | 760 | 765 |
| Ala Ser Glu Ser Val Ser Leu Glu Leu Pro Val Asp Ile Val Pro Asp | | |
| 770 | 775 | 780 |
| Ser Thr Lys Ala Tyr Val Thr Val Leu Gly Asp Ile Met Gly Thr Ala | | |
| 785 | 790 | 795 |
| Leu Gln Asn Leu Asp Gly Leu Val Gln Met Pro Ser Gly Cys Gly Glu | | |
| 805 | 810 | 815 |
| Gln Asn Met Val Leu Phe Ala Pro Ile Ile Tyr Val Leu Gln Tyr Leu | | |
| 820 | 825 | 830 |
| Glu Lys Ala Gly Leu Leu Thr Glu Glu Ile Arg Ser Arg Ala Val Gly | | |
| 835 | 840 | 845 |
| Phe Leu Glu Ile Gly Tyr Gln Lys Glu Leu Met Tyr Lys His Ser Asn | | |
| 850 | 855 | 860 |
| Gly Ser Tyr Ser Ala Phe Gly Glu Arg Asp Gly Asn Gly Asn Thr Trp | | |
| 865 | 870 | 875 |
| Leu Thr Ala Phe Val Thr Lys Cys Phe Gly Gln Ala Gln Lys Phe Ile | | |
| 885 | 890 | 895 |
| Phe Ile Asp Pro Lys Asn Ile Gln Asp Ala Leu Lys Trp Met Ala Gly | | |
| 900 | 905 | 910 |
| Asn Gln Leu Pro Ser Gly Cys Tyr Ala Asn Val Gly Asn Leu Leu His | | |
| 915 | 920 | 925 |
| Thr Ala Met Lys Gly Gly Val Asp Asp Glu Val Ser Leu Thr Ala Tyr | | |
| 930 | 935 | 940 |
| Val Thr Ala Ala Leu Leu Glu Met Gly Lys Asp Val Asp Asp Pro Met | | |
| 945 | 950 | 955 |
| Val Ser Gln Gly Leu Trp Cys Leu Lys Asn Ser Ala Thr Ser Thr Thr | | |
| 965 | 970 | 975 |
| Asn Leu Tyr Thr Gln Ala Leu Leu Ala Tyr Ile Phe Ser Leu Ala Gly | | |
| 980 | 985 | 990 |
| Glu Met Asp Ile Arg Asn Ile Leu Leu Lys Gln Leu Asp Gln Gln Ala | | |
| 995 | 1000 | 1005 |
| Ile Ile Ser Gly Glu Ser Ile Tyr Trp Ser Gln Lys Pro Thr Pro Ser | | |
| 1010 | 1015 | 1020 |
| Ser Asn Ala Ser Pro Trp Ser Glu Pro Ala Ala Val Asp Val Glu Leu | | |
| 1025 | 1030 | 1035 |
| Thr Ala Tyr Ala Leu Leu Ala Gln Leu Thr Lys Pro Ser Leu Thr Gln | | |

| | | |
|---|------|------|
| 1045 | 1050 | 1055 |
| Lys Glu Ile Ala Lys Ala Thr Ser Ile Val Ala Trp Leu Ala Lys Gln | | |
| 1060 | 1065 | 1070 |
| Arg Asn Ala Tyr Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala | | |
| 1075 | 1080 | 1085 |
| Leu Gln Ala Leu Ala Lys Tyr Ala Thr Thr Ala Tyr Val Pro Ser Glu | | |
| 1090 | 1095 | 1100 |
| Glu Ile Asn Leu Val Val Lys Ser Thr Glu Asn Phe Gln Arg Thr Phe | | |
| 1105 | 1110 | 1115 |
| Asn Ile Gln Ser Val Asn Arg Leu Val Phe Gln Gln Asp Thr Leu Pro | | |
| 1125 | 1130 | 1135 |
| Asn Val Pro Gly Met Tyr Thr Leu Glu Ala Ser Gly Gln Gly Cys Val | | |
| 1140 | 1145 | 1150 |
| Tyr Val Gln Thr Val Leu Arg Tyr Asn Ile Leu Pro Pro Thr Asn Met | | |
| 1155 | 1160 | 1165 |
| Lys Thr Phe Ser Leu Ser Val Glu Ile Gly Lys Ala Arg Cys Glu Gln | | |
| 1170 | 1175 | 1180 |
| Pro Thr Ser Pro Arg Ser Leu Thr Leu Thr Ile His Thr Ser Tyr Val | | |
| 1185 | 1190 | 1195 |
| Gly Ser Arg Ser Ser Ser Asn Met Ala Ile Val Glu Val Lys Met Leu | | |
| 1205 | 1210 | 1215 |
| Ser Gly Phe Ser Pro Met Glu Gly Thr Asn Gln Leu Leu Leu Gln Gln | | |
| 1220 | 1225 | 1230 |
| Pro Leu Val Lys Lys Val Glu Phe Gly Thr Asp Thr Leu Asn Ile Tyr | | |
| 1235 | 1240 | 1245 |
| Leu Asp Glu Leu Ile Lys Asn Thr Gln Thr Tyr Thr Phe Thr Ile Ser | | |
| 1250 | 1255 | 1260 |
| Gln Ser Val Leu Val Thr Asn Leu Lys Pro Ala Thr Ile Lys Val Tyr | | |
| 1265 | 1270 | 1275 |
| Asp Tyr Tyr Leu Pro Asp Glu Gln Ala Thr Ile Gln Tyr Ser Asp Pro | | |
| 1285 | 1290 | 1295 |
| Cys Glu | | |

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2909

```

Met Trp Glu Leu Trp Glu Tyr Asn Thr Arg Phe Gly Trp Gly His Ser
 1             5             10            15
Arg Thr Ile Ser Gln Val Glu Asn Pro Ala Lys Val Leu Asn Val Glu
      20             25            30
Pro Ala Lys Val Gln Pro Arg Phe Gly Val Val Pro Pro Ala Lys Ala
      35             40            45
His Pro Ser Ser Asp Pro Arg Ala Glu Asp Ser Trp Pro Lys Cys Glu
      50             55            60
Gly Ser Gly Arg Pro Met Phe Arg Phe Trp Trp Gln Val Leu Ala Gly
      65             70            75            80
Arg Asp Val Cys Pro Pro Ile Cys Asp Ser Phe Ile Glu Pro Gly Ser
      85             90            95
Arg Lys Pro Phe Glu Asp Val Val
      100

```

<210> 2910

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2910

```

Met Phe Ser Tyr Cys Val Tyr Leu Arg Leu Phe Cys Val Cys Val His
 1             5             10            15
Val Cys Ser Tyr His Val Cys Met Arg Met Cys Val Thr Val Cys Val
      20             25            30
Arg Ala Leu Val Arg Ala His Val Cys Leu Val Thr Val Cys Leu Arg
      35             40            45
Leu Phe Cys Val Cys Ala His Met Cys Leu Val Pro Cys Val Cys Val
      50             55            60
Cys Ala Trp Ala Cys Val Phe Ser Cys Cys Val Arg Val Leu Val Leu

```

```

65              70              75              80
Cys Val Cys Thr His Val Cys Leu Val Thr Val Cys Ala Cys Ala Cys
              85              90              95
Phe Val Cys Val His Ala Cys Leu Val Thr Ala Cys Ala Cys Ala Cys
              100             105             110
Phe Val Cys Val Cys Met Cys Val Val Thr Met Cys Ala Cys Ala Cys
              115             120             125
Val Leu Pro Cys Val Cys Val His Leu Cys Val Arg Met Cys Val
              130             135             140

```

<210> 2911

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2911

```

Met Ala Phe Ser Lys Asp Pro Trp Leu Trp Leu Leu Ser Leu Leu Leu
 1              5              10             15
Pro Ile Pro Asp Ser Arg Leu Arg His Pro Ser Pro Gly Gln Phe Glu
              20             25             30
Cys Ser Glu Asn Glu His Arg Gly Ala Trp Phe Leu Ala Ser Pro Ala
              35             40             45
Phe His Gln Pro Leu Trp His Pro Leu Tyr Cys Asp Ser His Lys Ala
              50             55             60
Gln Arg Phe Leu Phe Thr Phe Lys Cys Arg Lys Val Leu Cys Cys Leu
65              70              75              80
Val Tyr Arg Glu Ala Ser Phe Ala His Pro Val Phe Thr Pro Cys Leu
              85             90             95
Ser Tyr Pro Arg Gly Ser Ala Gly Gly Pro Gly Lys Gly Gln Pro Leu
              100            105            110
Thr Cys Leu Ala Thr Ile Val Ile Leu Leu Ser Ala Val Ala Ala Pro
              115            120            125
Leu Ala Lys Thr Ser Gly Leu Arg Ala Leu Cys Gly Gln Asp Phe
              130            135            140

```

<210> 2912

<211> 446

<212> PRT

<213> Homo sapiens

<400> 2912

```

Met Asp Leu Ala Ala Ile Glu Gly Thr Ser Gln Glu Leu Thr Lys Ser
  1             5             10            15
His Arg Arg Asn Thr Ser Gly Thr Pro Ser Ile Ala Val Ser Gly Thr
      20             25            30
Ser Leu Ser Ser Asp Gln Ser Arg Ser Glu Leu Asp Leu Ser Glu Ser
      35             40            45
Phe Thr Glu Asp Ser Glu Asp Thr Val Ser Ile Arg Ser Lys Ser Val
      50             55            60
Pro Gly Ala Leu Asp Lys Asp Ser Leu Glu Glu Thr Glu Glu Ser Ile
      65             70            75            80
Asp Ala Leu Val Ser Ser Gln Leu Ser Thr Asn Thr His Arg Leu Ala
      85             90            95
Ser Gly Leu Ser Thr Thr Ser Leu Asn Ser Met Met Ser Val Tyr Ser
      100            105            110
Glu Thr Gly Asp Tyr Gly Asn Val Lys Val Ser Gly Glu Ile Leu Leu
      115            120            125
His Ile Ser Tyr Cys Tyr Lys Thr Gly Gly Leu Tyr Ile Phe Val Lys
      130            135            140
Asn Cys Arg Asn Leu Ala Ile Gly Asp Glu Lys Lys Gln Arg Thr Asp
      145            150            155            160
Ala Tyr Val Lys Ser Tyr Leu Leu Pro Asp Lys Ser Arg Asn Asn Lys
      165            170            175
Arg Lys Thr Lys Ile Arg Thr Gly Thr Asn Pro Glu Phe Asn Glu Thr
      180            185            190
Leu Lys Tyr Thr Ile Ser His Thr Gln Leu Glu Thr Arg Thr Leu Gln
      195            200            205
Leu Ser Val Trp His Tyr Asp Arg Phe Gly Arg Asn Ser Phe Leu Gly
      210            215            220
Glu Val Glu Ile Pro Phe Asp Ser Trp Asn Phe Glu Asn Pro Thr Asp

```

| | | | |
|---|-----|-----|-----|
| 225 | 230 | 235 | 240 |
| Glu Trp Phe Val Leu Gln Pro Lys Val Glu Phe Ala Pro Asp Ile Gly | | | |
| 245 | 250 | 255 | |
| Leu Gln Tyr Lys Gly Glu Leu Thr Val Val Leu Arg Tyr Ile Pro Pro | | | |
| 260 | 265 | 270 | |
| Glu Glu Asn Leu Met Leu Pro Pro Glu Gln Leu Gln Gly Asn Lys Thr | | | |
| 275 | 280 | 285 | |
| Phe Lys Lys Gly Lys Lys Lys Glu Ser Pro Val Ile Ser Gly Gly Ile | | | |
| 290 | 295 | 300 | |
| Leu Glu Val Phe Ile Lys Glu Ala Lys Asn Leu Thr Ala Val Lys Ser | | | |
| 305 | 310 | 315 | 320 |
| Gly Gly Thr Ser Asp Ser Phe Val Lys Gly Tyr Leu Leu Pro Asp Asp | | | |
| 325 | 330 | 335 | |
| Ser Lys Ala Thr Lys His Lys Thr Leu Val Ile Lys Lys Ser Val Asn | | | |
| 340 | 345 | 350 | |
| Pro Gln Trp Asn His Thr Phe Met Phe Ser Gly Ile His Pro Gln Asp | | | |
| 355 | 360 | 365 | |
| Ile Lys Asn Val Cys Leu Glu Leu Thr Ile Trp Asp Lys Glu Ala Phe | | | |
| 370 | 375 | 380 | |
| Ser Ser Asn Ile Phe Leu Gly Gly Val Arg Leu Asn Ser Gly Ser Gly | | | |
| 385 | 390 | 395 | 400 |
| Val Ser His Gly Lys Asn Val Asp Trp Met Asp Ser Gln Gly Glu Glu | | | |
| 405 | 410 | 415 | |
| Gln Arg Leu Trp Gln Lys Met Ala Asn Asn Pro Gly Thr Pro Phe Glu | | | |
| 420 | 425 | 430 | |
| Gly Val Leu Met Leu Arg Ser Ser Met Gly Lys Cys Arg Leu | | | |
| 435 | 440 | 445 | |

<210> 2913

<211> 677

<212> PRT

<213> Homo sapiens

<400> 2913

Met Asn Pro Asp Gly Thr Thr Leu Gln Asp Gly Arg His Asp Leu Val

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Val Tyr Lys Gly Asp Asn Lys Lys Met Glu Asp Ala Lys Phe Tyr Leu | | | |
| 20 | 25 | 30 | |
| Thr Leu Pro Gly Thr Lys Met Glu Met Glu Glu Lys Glu Leu Gln Ala | | | |
| 35 | 40 | 45 | |
| Ser Lys Asn Leu Val Thr Phe Thr Pro Ser Lys Asp Ser Thr Lys Asp | | | |
| 50 | 55 | 60 | |
| Ser Phe Gln Ile Ala Thr Leu Ile Cys Ser Thr Lys Leu Thr Gln Asn | | | |
| 65 | 70 | 75 | 80 |
| | | | |
| Val Asp Leu Leu Gly Leu Leu Asn Trp Arg Ser Asn Ser Gln Asn Ile | | | |
| 85 | 90 | 95 | |
| Lys His Asn Leu Lys Lys Leu Met Glu Val Asp Gly Gly Glu Ile Val | | | |
| 100 | 105 | 110 | |
| Lys Phe Leu Gln Asp Thr Leu Asp Ala Leu Phe Asn Ile Met Met Glu | | | |
| 115 | 120 | 125 | |
| Met Ser Asp Ser Glu Thr Tyr Asp Phe Leu Val Phe Asp Ala Leu Val | | | |
| 130 | 135 | 140 | |
| Phe Ile Ile Ser Leu Ile Gly Asp Ile Lys Phe Gln His Phe Asn Pro | | | |
| 145 | 150 | 155 | 160 |
| Val Leu Glu Thr Tyr Ile Tyr Lys His Phe Ser Ala Thr Leu Ala Tyr | | | |
| 165 | 170 | 175 | |
| Val Lys Leu Ser Lys Val Leu Asn Phe Tyr Val Ala Asn Ala Asp Asp | | | |
| 180 | 185 | 190 | |
| Ser Ser Lys Thr Glu Leu Leu Phe Ala Ala Leu Lys Ala Leu Lys Tyr | | | |
| 195 | 200 | 205 | |
| Leu Phe Arg Phe Ile Ile Gln Ser Arg Val Leu Tyr Leu Arg Phe Tyr | | | |
| 210 | 215 | 220 | |
| Gly Gln Ser Lys Asp Gly Asp Glu Phe Asn Asn Ser Ile Arg Gln Leu | | | |
| 225 | 230 | 235 | 240 |
| Phe Leu Ala Phe Asn Met Leu Met Asp Arg Pro Leu Glu Glu Ala Val | | | |
| 245 | 250 | 255 | |
| Lys Ile Lys Gly Ala Ala Leu Lys Tyr Leu Pro Ser Ile Ile Asn Asp | | | |
| 260 | 265 | 270 | |
| Val Lys Leu Val Phe Asp Pro Val Glu Leu Ser Val Leu Phe Cys Lys | | | |
| 275 | 280 | 285 | |

Phe Ile Gln Ser Ile Pro Asp Asn Gln Leu Val Arg Gln Lys Leu Asn
 290 295 300
 Cys Met Thr Lys Ile Val Glu Ser Thr Leu Phe Arg Gln Ser Glu Cys
 305 310 315 320
 Arg Glu Val Leu Leu Pro Leu Leu Thr Asp Gln Leu Ser Gly Gln Leu
 325 330 335
 Asp Asp Asn Ser Asn Lys Pro Asp His Glu Ala Ser Ser Gln Leu Leu
 340 345 350
 Ser Asn Ile Leu Glu Val Leu Asp Arg Lys Asp Val Gly Ala Thr Ala
 355 360 365
 Val His Ile Gln Leu Ile Met Glu Arg Leu Leu Arg Arg Ile Asn Arg
 370 375 380
 Thr Val Ile Gly Met Asn Arg Gln Ser Pro His Ile Gly Ser Phe Val
 385 390 395 400
 Ala Cys Met Ile Ala Leu Leu Gln Gln Met Asp Asp Ser His Tyr Ser
 405 410 415
 His Tyr Ile Ser Thr Phe Lys Thr Arg Gln Asp Ile Ile Asp Phe Leu
 420 425 430
 Met Glu Thr Phe Ile Met Phe Lys Asp Leu Ile Gly Lys Asn Val Tyr
 435 440 445
 Ala Lys Asp Trp Met Val Met Asn Met Thr Gln Asn Arg Val Phe Leu
 450 455 460
 Arg Ala Ile Asn Arg Phe Ala Glu Val Leu Thr Arg Phe Phe Met Asp
 465 470 475 480
 Gln Ala Ser Phe Glu Leu Gln Leu Trp Asn Asn Tyr Phe His Leu Ala
 485 490 495
 Val Ala Phe Leu Thr His Glu Ser Leu Gln Leu Glu Thr Phe Ser Gln
 500 505 510
 Ala Lys Arg Asn Lys Ile Val Lys Lys Tyr Gly Asp Met Arg Lys Glu
 515 520 525
 Ile Gly Phe Arg Ile Arg Asp Met Trp Tyr Asn Leu Gly Pro Pro Lys
 530 535 540
 Ile Lys Phe Ile Pro Ser Met Val Gly Pro Ile Leu Glu Val Thr Leu
 545 550 555 560
 Thr Pro Glu Val Glu Leu Arg Lys Ala Thr Ile Pro Ile Phe Phe Asp
 565 570 575

Met Met Gln Cys Glu Phe Asn Phe Ser Gly Asn Gly Asn Phe His Met
 580 585 590
 Phe Glu Asn Glu Leu Ile Thr Lys Leu Asp Gln Glu Val Glu Gly Gly
 595 600 605
 Arg Gly Asp Glu Gln Tyr Lys Val Leu Leu Glu Lys Leu Leu Leu Glu
 610 615 620
 His Cys Arg Lys His Lys Tyr Leu Ser Ser Ser Gly Glu Val Phe Ala
 625 630 635 640
 Leu Leu Val Ser Ser Leu Leu Glu Asn Leu Leu Asp Tyr Arg Thr Ile
 645 650 655
 Ile Met Gln Asp Glu Ser Lys Glu Asn Arg Met Ser Cys Thr Val Asn
 660 665 670
 Val Leu Asn Phe Tyr
 675

<210> 2914

<211> 1277

<212> PRT

<213> Homo sapiens

<400> 2914

Met Ala Asn Arg Arg Val Gly Arg Gly Cys Trp Glu Val Ser Pro Thr
 1 5 10 15
 Glu Arg Arg Pro Pro Ala Gly Leu Arg Gly Pro Ala Ala Glu Glu Glu
 20 25 30
 Ala Ser Ser Pro Pro Val Leu Ser Leu Ser His Phe Cys Arg Ser Pro
 35 40 45
 Phe Leu Cys Phe Gly Asp Val Leu Leu Gly Ala Ser Arg Thr Leu Ser
 50 55 60
 Leu Ala Leu Asp Asn Pro Asn Glu Glu Val Ala Glu Val Lys Ile Ser
 65 70 75 80
 His Phe Pro Ala Ala Asp Leu Gly Phe Ser Val Ser Gln Arg Cys Phe
 85 90 95
 Val Leu Gln Pro Lys Glu Lys Ile Val Ile Ser Val Asn Trp Thr Pro

| | | | |
|---|-----|-----|-----|
| 100 | 105 | 110 | |
| Leu Lys Glu Gly Arg Val Arg Glu Ile Met Thr Phe Leu Val Asn Asp | | | |
| 115 | 120 | 125 | |
| Val Leu Lys His Gln Ala Ile Leu Leu Gly Asn Ala Glu Glu Gln Lys | | | |
| 130 | 135 | 140 | |
| Lys Lys Lys Arg Ser Leu Trp Asp Thr Ile Lys Lys Lys Lys Ile Ser | | | |
| 145 | 150 | 155 | 160 |
| Ala Ser Thr Ser His Asn Arg Arg Val Ser Asn Ile Gln Asn Val Asn | | | |
| 165 | 170 | 175 | |
| Lys Thr Phe Ser Val Ser Gln Lys Val Asp Arg Val Arg Ser Pro Leu | | | |
| 180 | 185 | 190 | |
| Gln Asp Cys Glu Asn Leu Ala Met Asn Glu Gly Gly Pro Pro Thr Glu | | | |
| 195 | 200 | 205 | |
| Asn Asn Ser Leu Ile Leu Glu Glu Asn Lys Ile Pro Ile Ser Pro Ile | | | |
| 210 | 215 | 220 | |
| Ser Pro Ala Phe Asn Glu Cys His Gly Ala Thr Cys Leu Pro Leu Ser | | | |
| 225 | 230 | 235 | 240 |
| Val Arg Arg Ser Thr Thr Tyr Ser Ser Leu His Ala Ser Glu Asn Arg | | | |
| 245 | 250 | 255 | |
| Glu Leu Leu Asn Val His Ser Ala Asn Val Ser Lys Val Ser Phe Asn | | | |
| 260 | 265 | 270 | |
| Glu Lys Ala Val Thr Glu Thr Ser Phe Asn Ser Val Asn Val Asn Gly | | | |
| 275 | 280 | 285 | |
| Gln Arg Gly Glu Asn Ser Lys Leu Ser Leu Thr Pro Asn Cys Ser Ser | | | |
| 290 | 295 | 300 | |
| Thr Leu Asn Ile Thr Gln Ser Gln Ile His Phe Leu Ser Pro Asp Ser | | | |
| 305 | 310 | 315 | 320 |
| Phe Val Asn Asn Ser His Glu Ala Asn Asn Glu Leu Glu Leu Val Thr | | | |
| 325 | 330 | 335 | |
| Cys Leu Ser Ser Asp Met Phe Met Lys Asp Asn Ser Gln Pro Val His | | | |
| 340 | 345 | 350 | |
| Leu Glu Ser Thr Ile Ala His Glu Ile Tyr Gln Lys Ile Leu Ser Pro | | | |
| 355 | 360 | 365 | |
| Asp Ser Phe Ile Lys Asp Asn Tyr Gly Leu Asn Gln Asp Leu Glu Ser | | | |
| 370 | 375 | 380 | |
| Glu Ser Val Asn Pro Ile Leu Ser Pro Asn Gln Phe Leu Lys Asp Asn | | | |

385 390 395 400
 Met Ala Tyr Met Cys Thr Ser Gln Gln Thr Cys Lys Val Pro Leu Ser
 405 410 415
 Asn Glu Asn Ser Gln Val Pro Gln Ser Pro Glu Asp Trp Arg Lys Ser
 420 425 430
 Glu Val Ser Pro Arg Ile Pro Glu Cys Gln Gly Ser Lys Ser Pro Lys
 435 440 445
 Ala Ile Phe Glu Glu Leu Val Glu Met Lys Ser Asn Tyr Tyr Ser Phe
 450 455 460
 Ile Lys Gln Asn Asn Pro Lys Phe Ser Ala Val Gln Asp Ile Ser Ser
 465 470 475 480
 His Ser His Asn Lys Gln Pro Lys Arg Arg Pro Ile Leu Ser Ala Thr
 485 490 495
 Val Thr Lys Arg Lys Ala Thr Cys Thr Arg Glu Asn Gln Thr Glu Ile
 500 505 510
 Asn Lys Pro Lys Ala Lys Arg Cys Leu Asn Ser Ala Val Gly Glu His
 515 520 525
 Glu Lys Val Ile Asn Asn Gln Lys Glu Lys Glu Asp Phe His Ser Tyr
 530 535 540
 Leu Pro Ile Ile Asp Pro Ile Leu Ser Lys Ser Lys Ser Tyr Lys Asn
 545 550 555 560
 Glu Val Thr Pro Ser Ser Thr Thr Ala Ser Val Ala Arg Lys Arg Lys
 565 570 575
 Ser Asp Gly Ser Met Glu Asp Ala Asn Val Arg Val Ala Ile Thr Glu
 580 585 590
 His Thr Glu Val Arg Glu Ile Lys Arg Ile His Phe Ser Pro Ser Glu
 595 600 605
 Pro Lys Thr Ser Ala Val Lys Lys Thr Lys Asn Val Thr Thr Pro Ile
 610 615 620
 Ser Lys Arg Ile Ser Asn Arg Glu Lys Leu Asn Leu Lys Lys Lys Thr
 625 630 635 640
 Asp Leu Ser Ile Phe Arg Thr Pro Ile Ser Lys Thr Asn Lys Arg Thr
 645 650 655
 Lys Pro Ile Ile Ala Val Ala Gln Ser Ser Leu Thr Phe Ile Lys Pro
 660 665 670
 Leu Lys Thr Asp Ile Pro Arg His Pro Met Pro Phe Ala Ala Lys Asn

| | | |
|---|-----|-----|
| 675 | 680 | 685 |
| Met Phe Tyr Asp Glu Arg Trp Lys Glu Lys Gln Glu Gln Gly Phe Thr | | |
| 690 | 695 | 700 |
| Trp Trp Leu Asn Phe Ile Leu Thr Pro Asp Asp Phe Thr Val Lys Thr | | |
| 705 | 710 | 715 |
| Asn Ile Ser Glu Val Asn Ala Ala Thr Leu Leu Leu Gly Ile Glu Asn | | |
| 725 | 730 | 735 |
| Gln His Lys Ile Ser Val Pro Arg Ala Pro Thr Lys Glu Glu Met Ser | | |
| 740 | 745 | 750 |
| Leu Arg Ala Tyr Thr Ala Arg Cys Arg Leu Asn Arg Leu Arg Arg Ala | | |
| 755 | 760 | 765 |
| Ala Cys Arg Leu Phe Thr Ser Glu Lys Met Val Lys Ala Ile Lys Lys | | |
| 770 | 775 | 780 |
| Leu Glu Ile Glu Ile Glu Ala Arg Arg Leu Ile Val Arg Lys Asp Arg | | |
| 785 | 790 | 795 |
| His Leu Trp Lys Asp Val Gly Glu Arg Gln Lys Val Leu Asn Trp Leu | | |
| 805 | 810 | 815 |
| Leu Ser Tyr Asn Pro Leu Trp Leu Arg Ile Gly Leu Glu Thr Thr Tyr | | |
| 820 | 825 | 830 |
| Gly Glu Leu Ile Ser Leu Glu Asp Asn Ser Asp Val Thr Gly Leu Ala | | |
| 835 | 840 | 845 |
| Met Phe Ile Leu Asn Arg Leu Leu Trp Asn Pro Asp Ile Ala Ala Glu | | |
| 850 | 855 | 860 |
| Tyr Arg His Pro Thr Val Pro His Leu Tyr Arg Asp Gly His Glu Glu | | |
| 865 | 870 | 875 |
| Ala Leu Ser Lys Phe Thr Leu Lys Lys Leu Leu Leu Leu Val Cys Phe | | |
| 885 | 890 | 895 |
| Leu Asp Tyr Ala Lys Ile Ser Arg Leu Ile Asp His Asp Pro Cys Leu | | |
| 900 | 905 | 910 |
| Phe Cys Lys Asp Ala Glu Phe Lys Ala Ser Lys Glu Ile Leu Leu Ala | | |
| 915 | 920 | 925 |
| Phe Ser Arg Asp Phe Leu Ser Gly Glu Gly Asp Leu Ser Arg His Leu | | |
| 930 | 935 | 940 |
| Gly Leu Leu Gly Leu Pro Val Asn His Val Gln Thr Pro Phe Asp Glu | | |
| 945 | 950 | 955 |
| Phe Asp Phe Ala Val Thr Asn Leu Ala Val Asp Leu Gln Cys Gly Val | | |

| | | | |
|---|------|------|------|
| | 965 | 970 | 975 |
| Arg Leu Val Arg Thr Met Glu Leu Leu Thr Gln Asn Trp Asp Leu Ser | | | |
| 980 | 985 | 990 | |
| Lys Lys Leu Arg Ile Pro Ala Ile Ser Arg Leu Gln Lys Met His Asn | | | |
| 995 | 1000 | 1005 | |
| Val Asp Ile Val Leu Gln Val Leu Lys Ser Arg Gly Ile Glu Leu Ser | | | |
| 1010 | 1015 | 1020 | |
| Asp Glu His Gly Asn Thr Ile Leu Ser Lys Asp Ile Val Asp Arg His | | | |
| 1025 | 1030 | 1035 | 1040 |
| Arg Glu Lys Thr Leu Arg Leu Leu Trp Lys Ile Ala Phe Ala Phe Gln | | | |
| 1045 | 1050 | 1055 | |
| Val Asp Ile Ser Leu Asn Leu Asp Gln Leu Lys Glu Glu Ile Ala Phe | | | |
| 1060 | 1065 | 1070 | |
| Leu Lys His Thr Lys Ser Ile Lys Lys Thr Ile Ser Leu Leu Ser Cys | | | |
| 1075 | 1080 | 1085 | |
| His Ser Asp Asp Leu Ile Asn Lys Lys Lys Gly Lys Arg Asp Ser Gly | | | |
| 1090 | 1095 | 1100 | |
| Ser Phe Glu Gln Tyr Ser Glu Asn Ile Lys Leu Leu Met Asp Trp Val | | | |
| 1105 | 1110 | 1115 | 1120 |
| Asn Ala Val Cys Ala Phe Tyr Asn Lys Lys Val Glu Asn Phe Thr Val | | | |
| 1125 | 1130 | 1135 | |
| Ser Phe Ser Asp Gly Arg Val Leu Cys Tyr Leu Ile His His Tyr His | | | |
| 1140 | 1145 | 1150 | |
| Pro Cys Tyr Val Pro Phe Asp Ala Ile Cys Gln Arg Thr Thr Gln Thr | | | |
| 1155 | 1160 | 1165 | |
| Val Glu Cys Thr Gln Thr Gly Ser Val Val Leu Asn Ser Ser Ser Glu | | | |
| 1170 | 1175 | 1180 | |
| Ser Asp Asp Ser Ser Leu Asp Met Ser Leu Lys Ala Phe Asp His Glu | | | |
| 1185 | 1190 | 1195 | 1200 |
| Asn Thr Ser Glu Leu Tyr Lys Glu Leu Leu Glu Asn Glu Lys Lys Asn | | | |
| 1205 | 1210 | 1215 | |
| Phe His Leu Val Arg Ser Ala Val Arg Asp Leu Gly Gly Ile Pro Ala | | | |
| 1220 | 1225 | 1230 | |
| Met Ile Asn His Ser Asp Thr Ser Asn Thr Ile Pro Asp Glu Lys Val | | | |
| 1235 | 1240 | 1245 | |
| Val Ile Thr Tyr Leu Ser Phe Leu Cys Ala Arg Leu Leu Asp Leu Arg | | | |

1250 1255 1260
 Lys Glu Ile Arg Ala Ala Arg Leu Ile Gln Thr Thr Trp
 1265 1270 1275

<210> 2915

<211> 164

<212> PRT

<213> Homo sapiens

<400> 2915

Met Pro Leu His Leu Ala Gly Phe Phe Phe Leu Ala Ala Tyr Ser Gln
 1 5 10 15
 Pro Cys Ser Phe Ser Arg Ser Pro Leu Gln Gly Thr Leu Pro His Asp
 20 25 30
 Ser Gly Gln Gln His Leu Lys Thr Thr Ala Asp Asp Leu Leu Gly Val
 35 40 45
 Cys His Gln Gln Ser Pro Gly Leu Gly Gln Lys Glu Arg Thr Thr Gln
 50 55 60
 Ser Val Glu Arg Thr Glu Leu Gly Arg Leu Arg Val Ile Asp Val Ile
 65 70 75 80
 Pro Gln His Val Glu Gly Val Val Arg Thr Ala Pro Glu Val Glu Ala
 85 90 95
 Val Lys Val Leu Ser Glu Val Leu Pro Pro Ala His Ile Gln Gln Val
 100 105 110
 Ala Gly Glu Leu Ile Lys Ala Leu Gln Arg Gly Val Gln Asn Asn Glu
 115 120 125
 His Asp Ser Gln Glu Cys Gln Ser Leu Lys Pro Phe Gln Val Phe Val
 130 135 140
 Ser Gln Asp Pro Ile Val Leu Thr Gly Asp Gln Ala Asn Leu Val Asp
 145 150 155 160
 His Lys Leu Leu

<210> 2916

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2916

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Met Gln Phe Leu His Ser Val Val Gly Leu Tyr Ile Leu Val Cys Phe
 1             5             10             15
Cys Ser Gly Trp Tyr Arg Phe Phe Leu Ser Ile Phe Ser Ala Ser Phe
          20             25             30
Arg Ser Ser Cys Lys Ala Gly Leu Val Val Thr Glu Ser Leu Ser Ile
          35             40             45
Cys Leu Ser Val Lys Asp Phe Ile Ser Pro Ser Leu Met Lys Leu Ser
          50             55             60
Leu Ala Gly Tyr Glu Ile Leu Cys Leu Lys Phe Phe Ser Leu Arg Ile
          65             70             75             80
Leu Asn Ile Gly Leu His Cys Leu Leu Ala Cys Arg Val Ser Ala Glu
          85             90             95
Arg Ser Ala Val Ser Leu Trp Ala Ser Leu Cys Arg
          100             105

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<210> 2917

<211> 1047

<212> PRT

<213> Homo sapiens

<400> 2917

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Met Ala Glu Lys Arg Pro Leu Arg Thr Leu Gly Pro Val Met Tyr Gly
 1             5             10             15
Lys Leu Pro Arg Leu Glu Thr Asp Ser Gly Leu Glu His Ser Leu Pro
          20             25             30
His Ser Val Gly Asn Gln Asp Pro Cys Thr Tyr Lys Gly Ser Tyr Phe
          35             40             45
Ser Cys Pro Met Ala Gly Thr Pro Lys Ala Glu Ser Glu Gln Leu Ala
          50             55             60
Ser Trp Thr Pro Tyr Pro Pro Leu Tyr Ser Thr Gly Met Ala Gly Pro

```


| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 65 | 70 | | | | | | | 75 | | | | | | | 80 | | |
| Pro | Leu | Gln | Ala | Asp | Asn | Leu | Leu | Thr | Asn | Cys | Leu | Phe | Tyr | Arg | Ser | | |
| 85 | | | | | | | | 90 | | | | 95 | | | | | |
| Pro | Ala | Glu | Gly | Pro | Glu | Lys | Met | Gln | Asp | Ser | Ser | Pro | Val | Glu | Leu | | |
| 100 | | | | | | | | 105 | | | | 110 | | | | | |
| Leu | Pro | Phe | Ser | Pro | Gln | Ala | His | Ser | Tyr | Pro | Gly | Pro | Pro | Leu | Ala | | |
| 115 | | | | | | | | 120 | | | | 125 | | | | | |
| Ala | Pro | Lys | Pro | Val | Tyr | Arg | Asn | Pro | Leu | Cys | Tyr | Gly | Leu | Ser | Thr | | |
| 130 | | | | | | | | 135 | | | | 140 | | | | | |
| Cys | Leu | Gly | Glu | Gly | Ala | Val | Lys | Arg | Pro | Leu | Asp | Val | Asp | Trp | Thr | | |
| 145 | | | | | | | | 150 | | | | 155 | | | | | |
| Leu | Ala | Thr | Gly | Pro | Leu | Leu | Pro | Ser | Ala | Asp | Pro | Pro | Cys | Ser | Leu | | |
| 165 | | | | | | | | 170 | | | | 175 | | | | | |
| Ala | Pro | Ala | Pro | Ser | Lys | Gly | Gln | Thr | Leu | Asp | Gly | Thr | Phe | Leu | Arg | | |
| 180 | | | | | | | | 185 | | | | 190 | | | | | |
| Gly | Val | Pro | Ala | Glu | Gly | Ser | Ser | Lys | Asp | Ser | Ser | Gly | Ser | Phe | Ser | | |
| 195 | | | | | | | | 200 | | | | 205 | | | | | |
| Pro | Cys | Gln | Pro | Phe | Leu | Glu | Lys | Tyr | Gln | Thr | Ile | His | Ser | Thr | Gly | | |
| 210 | | | | | | | | 215 | | | | 220 | | | | | |
| Phe | Leu | Ala | Ser | Arg | Tyr | Thr | Gly | Pro | Tyr | Pro | Arg | Asn | Ser | Lys | Gln | | |
| 225 | | | | | | | | 230 | | | | 235 | | | | | |
| Ala | Met | Ser | Glu | Gly | Pro | Ser | Ser | Pro | Trp | Thr | Gln | Leu | Ala | Gln | Pro | | |
| 245 | | | | | | | | 250 | | | | 255 | | | | | |
| Leu | Gly | Pro | Pro | Cys | Gln | Asp | Thr | Gly | Pro | Thr | His | Tyr | Pro | Pro | Pro | | |
| 260 | | | | | | | | 265 | | | | 270 | | | | | |
| His | His | Pro | Pro | Pro | His | Pro | Pro | Gln | Ala | Leu | Pro | Cys | Pro | Pro | Ala | | |
| 275 | | | | | | | | 280 | | | | 285 | | | | | |
| Cys | Arg | His | Pro | Glu | Lys | Gln | Gly | Ser | Tyr | Ser | Pro | Ala | Leu | Pro | Leu | | |
| 290 | | | | | | | | 295 | | | | 300 | | | | | |
| Gln | Pro | Leu | Gly | Gly | His | Lys | Gly | Thr | Gly | Tyr | Gln | Ala | Gly | Gly | Leu | | |
| 305 | | | | | | | | 310 | | | | 315 | | | | | |
| Gly | Ser | Pro | Tyr | Leu | Arg | Gln | Gln | Ala | Ala | Gln | Ala | Pro | Tyr | Ile | Pro | | |
| 325 | | | | | | | | 330 | | | | 335 | | | | | |
| Pro | Leu | Gly | Leu | Asp | Ala | Tyr | Pro | Tyr | Pro | Ser | Ala | Pro | Leu | Pro | Ala | | |
| 340 | | | | | | | | 345 | | | | 350 | | | | | |
| Pro | Ser | Pro | Gly | Leu | Lys | Leu | Glu | Pro | Pro | Leu | Thr | Pro | Arg | Cys | Pro | | |

| | | |
|---|---------------------|-----------------|
| 355 | 360 | 365 |
| Leu Asp Phe Ala Pro Gln Thr | Leu Ser Phe Pro Tyr | Ala Arg Asp Asp |
| 370 | 375 | 380 |
| Leu Ser Leu Tyr Gly Ala Ser Pro Gly Leu Gly Gly Thr Pro Pro Ser | | |
| 385 | 390 | 395 |
| Gln Asn Asn Val Arg Ala Val Pro Gln Pro Gly Ala Phe Gln Arg Ala | | |
| 405 | 410 | 415 |
| Cys Gln Pro Leu Pro Ala Ser Gln Pro Cys Ser Glu Pro Val Arg Pro | | |
| 420 | 425 | 430 |
| Ala Gln Glu Ala Glu Glu Lys Thr Trp Leu Pro Ser Cys Arg Lys Glu | | |
| 435 | 440 | 445 |
| Lys Leu Gln Pro Arg Leu Ser Glu His Ser Gly Pro Pro Ile Val Ile | | |
| 450 | 455 | 460 |
| Arg Asp Ser Pro Val Pro Cys Thr Pro Pro Ala Leu Pro Pro Cys Ala | | |
| 465 | 470 | 475 |
| Arg Glu Cys Gln Ser Leu Pro Gln Lys Glu Asp Ala Arg Pro Pro Ser | | |
| 485 | 490 | 495 |
| Ser Pro Pro Met Pro Val Ile Asp Asn Val Phe Ser Leu Ala Pro Tyr | | |
| 500 | 505 | 510 |
| Arg Asp Tyr Leu Asp Val Pro Ala Pro Glu Ala Thr Thr Glu Pro Asp | | |
| 515 | 520 | 525 |
| Ser Ala Thr Ala Glu Pro Asp Ser Ala Pro Ala Thr Ser Glu Gly Gln | | |
| 530 | 535 | 540 |
| Asp Lys Gly Cys Arg Gly Thr Leu Pro Ala Gln Glu Gly Pro Ser Gly | | |
| 545 | 550 | 555 |
| Ser Lys Pro Leu Arg Gly Ser Leu Lys Glu Glu Val Ala Leu Asp Leu | | |
| 565 | 570 | 575 |
| Ser Val Arg Lys Pro Thr Ala Glu Ala Ser Pro Val Lys Ala Ser Arg | | |
| 580 | 585 | 590 |
| Ser Val Glu His Ala Lys Pro Thr Ala Ala Met Asp Val Pro Asp Val | | |
| 595 | 600 | 605 |
| Gly Asn Met Val Ser Asp Leu Pro Gly Leu Lys Lys Ile Asp Thr Glu | | |
| 610 | 615 | 620 |
| Ala Pro Gly Leu Pro Gly Val Pro Val Thr Thr Asp Ala Met Pro Arg | | |
| 625 | 630 | 635 |
| | | 640 |

Thr Asn Phe His Ser Ser Val Ala Phe Met Phe Arg Lys Phe Lys Ile
 645 650 655
 Leu Arg Pro Ala Pro Leu Pro Ala Ala Val Val Pro Ser Thr Pro Thr
 660 665 670
 Ser Ala Pro Ala Pro Thr Gln Pro Ala Pro Thr Pro Thr Ser Gly Pro
 675 680 685
 Ile Gly Leu Arg Ile Leu Ala Gln Gln Pro Leu Ser Val Thr Cys Phe
 690 695 700
 Ser Leu Ala Leu Pro Ser Pro Pro Ala Val Ala Val Ala Ser Pro Ala
 705 710 715 720
 Pro Ala Pro Ala Pro Ser Pro Ala Pro Ala Arg Ala Gln Ala Pro Ala
 725 730 735
 Ser Ala Arg Asp Pro Ala Pro Ala Pro Ala Pro Val Ala Gly Pro Ala
 740 745 750
 Pro Ala Ser Thr Ser Ala Pro Gly Asp Ser Leu Glu Gln His Phe Thr
 755 760 765
 Gly Leu His Ala Ser Leu Cys Asp Ala Ile Ser Gly Ser Val Ala His
 770 775 780
 Ser Pro Pro Glu Lys Leu Arg Glu Trp Leu Glu Thr Ala Gly Pro Trp
 785 790 795 800
 Gly Gln Ala Ala Trp Gln Asp Cys Gln Gly Val Gln Gly Leu Leu Ala
 805 810 815
 Lys Leu Leu Ser Gln Leu Gln Arg Phe Asp Arg Thr His Arg Cys Pro
 820 825 830
 Phe Pro His Val Val Arg Ala Gly Ala Ile Phe Val Pro Ile His Leu
 835 840 845
 Val Lys Glu Arg Leu Phe Pro Arg Leu Pro Pro Ala Ser Val Asp His
 850 855 860
 Val Leu Gln Glu His Arg Val Glu Leu Arg Pro Thr Thr Leu Ser Glu
 865 870 875 880
 Glu Arg Ala Leu Arg Glu Leu Ala Leu Pro Gly Cys Thr Ser Arg Met
 885 890 895
 Leu Lys Leu Leu Ala Leu Arg Gln Leu Pro Asp Ile Tyr Pro Asp Leu
 900 905 910
 Leu Gly Leu Gln Trp Arg Asp Cys Val Arg Arg Gln Leu Gly Asp Phe
 915 920 925

Asp Thr Glu Ala Gly Ala Val Ser Ser Ser Glu Pro Thr Val Ala Arg
 930 935 940
 Asp Glu Pro Glu Ser Leu Ala Leu Ala Gln Lys Ser Pro Ala Pro Lys
 945 950 955 960
 Val Arg Lys Pro Gly Arg Lys Pro Pro Thr Pro Gly Pro Glu Lys Ala
 965 970 975
 Glu Ala Ala Ala Gly Glu Glu Ser Cys Gly Ala Ser Pro Thr Pro Ala
 980 985 990
 Thr Ser Ala Ser Pro Pro Gly Pro Thr Leu Lys Ala Arg Phe Arg Ser
 995 1000 1005
 Leu Leu Glu Thr Ala Trp Leu Asn Gly Leu Ala Leu Pro Thr Trp Gly
 1010 1015 1020
 His Lys Ser Ser Arg Pro Asp Gln Pro Ser Pro Cys Pro Gln Leu Leu
 1025 1030 1035 1040
 Asp Ser Gln Ser His His Leu
 1045

<210> 2918

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2918

Met Ser Pro Ser Ser Thr Trp Val Arg Asn Phe Phe Thr Phe Ser Asn
 1 5 10 15
 Ser Ala Leu Ala Cys Ser Pro Ser Phe Leu Ser Ser Thr Pro Val Ser
 20 25 30
 Glu Arg Ser Thr Ile Pro Cys Ser Ile Arg Asp Leu Val Arg Cys Ser
 35 40 45
 Met Gly Thr Val Ala Ser Thr Ser Ser Leu Thr Val Asp Asp Phe Leu
 50 55 60
 Ser Met Asp Pro Phe Ile Leu Leu Lys Ala Gly Leu Gly Ser Leu Ser
 65 70 75 80
 Ser Thr Thr Val Ser Asp Arg Ala Leu Val Val Gln Gly Glu Ser Lys
 85 90 95

His Phe Ser Arg Ile Asp Thr Lys Cys Ser Ser Phe Glu Leu Val Arg
 100 105 110
 Gly Asn Leu Asn Gln Lys Leu Leu Gln Ala Arg Lys Met Ser Val Cys
 115 120 125
 Arg Ser Thr Arg
 130

<210> 2919

<211> 581

<212> PRT

<213> Homo sapiens

<400> 2919

Met Pro Leu Lys His Tyr Leu Leu Leu Leu Val Gly Cys Gln Ala Trp
 1 5 10 15
 Gly Ala Gly Leu Ala Tyr His Gly Cys Pro Ser Glu Cys Thr Cys Ser
 20 25 30
 Arg Ala Ser Gln Val Glu Cys Thr Gly Ala Arg Ile Val Ala Val Pro
 35 40 45
 Thr Pro Leu Pro Trp Asn Ala Met Ser Leu Gln Ile Leu Asn Thr His
 50 55 60
 Ile Thr Glu Leu Asn Glu Ser Pro Phe Leu Asn Ile Ser Ala Leu Ile
 65 70 75 80
 Ala Leu Arg Ile Glu Lys Asn Glu Leu Ser Arg Ile Thr Pro Gly Ala
 85 90 95
 Phe Arg Asn Leu Gly Ser Leu Arg Tyr Leu Ser Leu Ala Asn Asn Lys
 100 105 110
 Leu Gln Val Leu Pro Ile Gly Leu Phe Gln Gly Leu Asp Ser Leu Glu
 115 120 125
 Ser Leu Leu Leu Ser Ser Asn Gln Leu Leu Gln Ile Gln Pro Ala His
 130 135 140
 Phe Ser Gln Cys Ser Asn Leu Lys Glu Leu Gln Leu His Gly Asn His
 145 150 155 160
 Leu Glu Tyr Ile Pro Asp Gly Ala Phe Asp His Leu Val Gly Leu Thr
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Asn | Leu | Gly | Lys | Asn | Ser | Leu | Thr | His | Ile | Ser | Pro | Arg | Val |
| 180 | | | | 185 | | | | 190 | | | | | | | |
| Phe | Gln | His | Leu | Gly | Asn | Leu | Gln | Val | Leu | Arg | Leu | Tyr | Glu | Asn | Arg |
| 195 | | | | 200 | | | | 205 | | | | | | | |
| Leu | Thr | Asp | Ile | Pro | Met | Gly | Thr | Phe | Asp | Gly | Leu | Val | Asn | Leu | Gln |
| 210 | | | | 215 | | | | 220 | | | | | | | |
| Glu | Leu | Ala | Leu | Gln | Gln | Asn | Gln | Ile | Gly | Leu | Leu | Ser | Pro | Gly | Leu |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Phe | His | Asn | Asn | His | Asn | Leu | Gln | Arg | Leu | Tyr | Leu | Ser | Asn | Asn | His |
| 245 | | | | 250 | | | | 255 | | | | | | | |
| Ile | Ser | Gln | Leu | Pro | Pro | Ser | Val | Phe | Met | Gln | Leu | Pro | Gln | Leu | Asn |
| 260 | | | | 265 | | | | 270 | | | | | | | |
| Arg | Leu | Thr | Leu | Phe | Gly | Asn | Ser | Leu | Lys | Glu | Leu | Ser | Pro | Gly | Ile |
| 275 | | | | 280 | | | | 285 | | | | | | | |
| Phe | Gly | Pro | Met | Pro | Asn | Leu | Arg | Glu | Leu | Trp | Leu | Tyr | Asp | Asn | His |
| 290 | | | | 295 | | | | 300 | | | | | | | |
| Ile | Ser | Ser | Leu | Pro | Asp | Asn | Val | Phe | Ser | Asn | Leu | Arg | Gln | Leu | Gln |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Val | Leu | Ile | Leu | Ser | Arg | Asn | Gln | Ile | Ser | Phe | Ile | Ser | Pro | Gly | Ala |
| 325 | | | | 330 | | | | 335 | | | | | | | |
| Phe | Asn | Gly | Leu | Thr | Glu | Leu | Arg | Glu | Leu | Ser | Leu | His | Thr | Asn | Ala |
| 340 | | | | 345 | | | | 350 | | | | | | | |
| Leu | Gln | Asp | Leu | Asp | Gly | Asn | Val | Phe | Arg | Met | Leu | Ala | Asn | Leu | Gln |
| 355 | | | | 360 | | | | 365 | | | | | | | |
| Asn | Ile | Ser | Leu | Gln | Asn | Asn | Arg | Leu | Arg | Gln | Leu | Pro | Gly | Asn | Ile |
| 370 | | | | 375 | | | | 380 | | | | | | | |
| Phe | Ala | Asn | Val | Asn | Gly | Leu | Met | Ala | Ile | Gln | Leu | Gln | Asn | Asn | Gln |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Leu | Glu | Asn | Leu | Pro | Leu | Gly | Ile | Phe | Asp | His | Leu | Gly | Lys | Leu | Cys |
| 405 | | | | 410 | | | | 415 | | | | | | | |
| Glu | Leu | Arg | Leu | Tyr | Asp | Asn | Pro | Trp | Arg | Cys | Asp | Ser | Asp | Ile | Leu |
| 420 | | | | 425 | | | | 430 | | | | | | | |
| Pro | Leu | Arg | Asn | Trp | Leu | Leu | Leu | Asn | Gln | Pro | Arg | Leu | Gly | Thr | Asp |
| 435 | | | | 440 | | | | 445 | | | | | | | |
| Thr | Val | Pro | Val | Cys | Phe | Ser | Pro | Ala | Asn | Val | Arg | Gly | Gln | Ser | Leu |
| 450 | | | | 455 | | | | 460 | | | | | | | |

Ile Ile Ile Asn Val Asn Val Val Val Pro Ser Val His Val Pro Glu
 465 470 475 480
 Val Pro Ser Tyr Pro Glu Thr Pro Trp Tyr Pro Asp Thr Pro Ser Tyr
 485 490 495
 Pro Asp Thr Thr Ser Val Ser Ser Thr Thr Glu Leu Thr Ser Pro Val
 500 505 510
 Glu Asp Tyr Thr Asp Leu Thr Thr Ile Gln Val Thr Asp Asp Arg Ser
 515 520 525
 Val Trp Gly Met Thr Gln Ala Gln Ser Gly Leu Ala Ile Ala Ala Ile
 530 535 540
 Val Ile Gly Ile Val Ala Leu Ala Cys Ser Leu Ala Ala Cys Val Gly
 545 550 555 560
 Cys Cys Cys Cys Lys Lys Arg Ser Gln Ala Val Leu Met Gln Met Lys
 565 570 575
 Ala Pro Asn Glu Cys
 580

<210> 2920

<211> 1252

<212> PRT

<213> Homo sapiens

<400> 2920

Met Leu Tyr Ala Cys Ala Arg Asn Met Ile Ser Thr Val Lys Met Phe
 1 5 10 15
 Leu Lys Ser Lys Gly Thr Lys Glu Leu Glu Val Asn Cys Leu Asn Gln
 20 25 30
 Val Lys Ser Ser Leu Leu Lys Thr Ser Lys Ser Leu Arg Gln Asn Leu
 35 40 45
 Gly Lys Lys Leu Asp Lys Glu Asp Lys Val Arg Glu Cys Gln Leu Gln
 50 55 60
 Val Phe Leu Arg Leu Glu Met Cys Leu Gln Cys Pro Ser Ile Asn Glu
 65 70 75 80
 Ser Thr Asp Asp Met Glu Gln Val Val Glu Glu Val Thr Asp Leu Leu
 85 90 95

Arg Met Val Cys Leu Thr Glu Asp Ser Ala Tyr Leu Ala Glu Phe Leu
 100 105 110
 Glu Glu Ile Leu Arg Leu Tyr Ile Asp Ser Ile Pro Lys Thr Leu Gly
 115 120 125
 Asn Leu Tyr Asn Ser Leu Gly Phe Val Ile Pro Gln Lys Leu Ala Gly
 130 135 140
 Val Leu Pro Thr Asp Phe Phe Ser Asp Asp Ser Met Thr Gln Glu Asn
 145 150 155 160
 Lys Ser Pro Leu Leu Ser Val Pro Phe Leu Ser Ser Ala Arg Arg Ser
 165 170 175
 Val Ser Gly Ser Pro Glu Ser Asp Glu Leu Gln Glu Leu Arg Thr Arg
 180 185 190
 Ser Ala Lys Lys Arg Arg Lys Asn Ala Leu Ile Arg His Lys Ser Ile
 195 200 205
 Ala Glu Val Ser Gln Asn Leu Arg Gln Ile Glu Ile Pro Lys Val Ser
 210 215 220
 Lys Arg Ala Thr Lys Lys Glu Asn Ser His Pro Ala Pro Gln Gln Pro
 225 230 235 240
 Ser Gln Pro Val Lys Asp Thr Val Gln Glu Val Thr Lys Val Arg Arg
 245 250 255
 Asn Leu Phe Asn Gln Glu Leu Leu Ser Pro Ser Lys Arg Ser Leu Lys
 260 265 270
 Arg Gly Leu Pro Arg Ser His Ser Val Ser Ala Val Asp Gly Leu Glu
 275 280 285
 Asp Lys Leu Asp Asn Phe Lys Lys Asn Lys Gly Tyr His Lys Leu Leu
 290 295 300
 Thr Lys Ser Val Ala Glu Thr Pro Val His Lys Gln Ile Ser Lys Arg
 305 310 315 320
 Leu Leu His Arg Gln Ile Lys Gly Arg Ser Ser Asp Pro Gly Pro Asp
 325 330 335
 Ile Gly Val Val Glu Glu Ser Pro Glu Lys Gly Asp Glu Ile Gly Leu
 340 345 350
 Arg Arg Ser Pro Arg Ile Lys Gln Leu Ser Phe Ser Arg Thr His Ser
 355 360 365
 Ala Ser Phe Tyr Ser Val Ser Gln Pro Lys Ser Arg Ser Val Gln Arg
 370 375 380

Val His Ser Phe Gln Gln Asp Lys Ser Asp Gln Arg Glu Asn Ser Pro
 385 390 395 400
 Val Gln Ser Ile Arg Ser Pro Lys Ser Leu Leu Phe Gly Ala Met Ser
 405 410 415
 Glu Met Ile Ser Pro Ser Glu Lys Gly Ser Ala Arg Met Lys Lys Arg
 420 425 430
 Ser Arg Asn Thr Leu Asp Ser Glu Val Pro Ala Ala Tyr Gln Thr Pro
 435 440 445
 Lys Lys Ser His Gln Lys Ser Leu Ser Phe Ser Lys Thr Thr Pro Arg
 450 455 460
 Arg Ile Ser His Thr Pro Gln Thr Pro Leu Tyr Thr Pro Glu Arg Leu
 465 470 475 480
 Gln Lys Ser Pro Ala Lys Met Thr Pro Thr Lys Gln Ala Ala Phe Lys
 485 490 495
 Glu Ser Leu Lys Asp Ser Ser Ser Pro Gly His Asp Ser Pro Leu Asp
 500 505 510
 Ser Lys Ile Thr Pro Gln Lys Arg His Thr Gln Ala Gly Glu Gly Thr
 515 520 525
 Ser Leu Glu Thr Lys Thr Pro Arg Thr Pro Lys Arg Gln Gly Thr Gln
 530 535 540
 Pro Pro Gly Phe Leu Pro Asn Cys Thr Trp Pro His Ser Val Asn Ser
 545 550 555 560
 Ser Pro Glu Ser Pro Ser Cys Pro Ala Pro Pro Thr Ser Ser Thr Ala
 565 570 575
 Gln Pro Arg Arg Glu Cys Leu Thr Pro Ile Arg Asp Pro Leu Arg Thr
 580 585 590
 Pro Pro Arg Ala Ala Ala Phe Met Gly Thr Pro Gln Asn Gln Thr His
 595 600 605
 Gln Gln Pro His Val Leu Arg Ala Ala Arg Ala Glu Glu Pro Ala Gln
 610 615 620
 Lys Leu Lys Asp Lys Ala Ile Lys Thr Pro Lys Arg Pro Gly Asn Ser
 625 630 635 640
 Thr Val Thr Ser Ser Pro Pro Val Thr Pro Lys Lys Leu Phe Thr Ser
 645 650 655
 Pro Leu Cys Asp Val Ser Lys Lys Ser Pro Phe Arg Lys Ser Lys Ile
 660 665 670

Glu Cys Pro Ser Pro Gly Glu Leu Asp Gln Lys Glu Pro Gln Met Ser
 675 680 685
 Pro Ser Val Ala Ala Ser Leu Ser Cys Pro Val Pro Ser Thr Pro Pro
 690 695 700
 Glu Leu Ser Gln Arg Ala Thr Leu Asp Thr Ile Pro Pro Pro Pro Pro
 705 710 715 720
 Ser Lys Val Gly Lys Arg Cys Arg Lys Thr Ser Asp Pro Arg Arg Ser
 725 730 735
 Ile Val Glu Cys Gln Pro Asp Ala Ser Ala Thr Pro Gly Val Gly Thr
 740 745 750
 Ala Asp Ser Pro Ala Ala Pro Thr Asp Ser Arg Asp Asp Gln Lys Gly
 755 760 765
 Leu Ser Leu Ser Pro Gln Ser Pro Pro Glu Arg Arg Gly Tyr Pro Gly
 770 775 780
 Pro Gly Leu Arg Ser Asp Trp His Ala Ser Ser Pro Leu Leu Ile Thr
 785 790 795 800
 Ser Asp Thr Glu His Val Thr Leu Leu Ser Glu Ala Glu His His Gly
 805 810 815
 Ile Gly Asp Leu Lys Ser Asn Val Leu Ser Val Glu Glu Gly Glu Gly
 820 825 830
 Leu Arg Thr Ala Asp Ala Glu Lys Ser Ser Leu Ser His Pro Gly Ile
 835 840 845
 Pro Pro Ser Pro Pro Ser Cys Gly Pro Gly Ser Pro Leu Met Pro Ser
 850 855 860
 Arg Asp Val His Cys Thr Thr Asp Gly Arg Gln Cys Gln Ala Ser Ala
 865 870 875 880
 Gln Leu Asp Asn Leu Pro Ala Ser Ala Trp His Ser Thr Asp Ser Ala
 885 890 895
 Ser Pro Gln Thr Tyr Glu Val Glu Leu Glu Met Gln Ala Ser Gly Leu
 900 905 910
 Pro Lys Leu Arg Ile Lys Lys Ile Asp Pro Ser Ser Ser Leu Glu Ala
 915 920 925
 Glu Pro Leu Ser Lys Glu Glu Ser Ser Leu Gly Glu Glu Ser Phe Leu
 930 935 940
 Pro Ala Leu Ser Met Pro Arg Ala Ser Arg Ser Leu Ser Lys Pro Glu
 945 950 955 960

Pro Thr Tyr Val Ser Pro Pro Cys Pro Arg Leu Ser His Ser Thr Pro
 965 970 975
 Gly Lys Ser Arg Gly Gln Thr Tyr Ile Cys Gln Ala Cys Thr Pro Thr
 980 985 990
 His Gly Pro Ser Ser Thr Pro Ser Pro Phe Gln Thr Asp Gly Val Pro
 995 1000 1005
 Trp Thr Pro Ser Pro Lys His Ser Gly Lys Thr Thr Pro Asp Ile Ile
 1010 1015 1020
 Lys Asp Trp Pro Arg Arg Lys Arg Ala Val Gly Cys Gly Ala Gly Ser
 1025 1030 1035 1040
 Ser Ser Gly Arg Gly Glu Val Gly Ala Asp Leu Pro Gly Ser Leu Ser
 1045 1050 1055
 Leu Leu Glu Ser Glu Gly Lys Asp His Gly Leu Glu Leu Ser Ile His
 1060 1065 1070
 Arg Thr Pro Ile Leu Glu Asp Phe Glu Leu Glu Gly Val Cys Gln Leu
 1075 1080 1085
 Pro Asp Gln Ser Pro Pro Arg Asn Ser Met Pro Lys Ala Glu Glu Ala
 1090 1095 1100
 Ser Ser Trp Gly Gln Phe Gly Leu Ser Ser Arg Lys Arg Val Leu Leu
 1105 1110 1115 1120
 Ala Lys Glu Glu Ala Asp Arg Gly Ala Lys Arg Ile Cys Asp Leu Arg
 1125 1130 1135
 Glu Asp Ser Glu Val Ser Lys Ser Lys Glu Gly Ser Pro Ser Trp Ser
 1140 1145 1150
 Ala Trp Gln Leu Pro Ser Thr Gly Asp Glu Glu Val Phe Val Ser Gly
 1155 1160 1165
 Ser Thr Pro Pro Pro Ser Cys Ala Val Arg Ser Cys Leu Ser Ala Ser
 1170 1175 1180
 Ala Leu Gln Ala Leu Thr Gln Ser Pro Leu Leu Phe Gln Gly Lys Thr
 1185 1190 1195 1200
 Pro Ser Ser Gln Ser Lys Asp Pro Arg Asp Glu Asp Val Asp Val Leu
 1205 1210 1215
 Pro Ser Thr Val Glu Asp Ser Pro Phe Ser Arg Ala Phe Ser Arg Arg
 1220 1225 1230
 Arg Pro Ile Ser Arg Thr Tyr Thr Arg Lys Lys Leu Met Gly Thr Trp
 1235 1240 1245

Leu Glu Asp Leu

1250

<210> 2921

<211> 654

<212> PRT

<213> Homo sapiens

<400> 2921

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Ser | Ser | Ser | Cys | Glu | Thr | Thr | Arg | Asn | Thr | Thr | Gly | Ile | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ser | Thr | Asp | Gly | Met | Ile | Leu | Gly | Pro | Glu | Asp | Leu | Ser | Tyr | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Tyr | Asp | Val | Ser | Gly | Glu | Ser | Asn | Ser | Ala | Val | Ser | Thr | Glu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Lys | Glu | Cys | Leu | Lys | Lys | Gln | Leu | Glu | Phe | Cys | Phe | Ser | Arg | Glu |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Asn | Leu | Ser | Lys | Asp | Leu | Tyr | Leu | Ile | Ser | Gln | Met | Asp | Ser | Asp | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Phe | Ile | Pro | Ile | Trp | Thr | Val | Ala | Asn | Met | Glu | Glu | Ile | Lys | Lys | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Thr | Asp | Pro | Asp | Leu | Ile | Leu | Glu | Val | Leu | Arg | Ser | Ser | Pro | Met |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Val | Gln | Val | Asp | Glu | Lys | Gly | Glu | Lys | Val | Arg | Pro | Ser | His | Lys | Arg |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Cys | Ile | Val | Ile | Leu | Arg | Glu | Ile | Pro | Glu | Thr | Thr | Pro | Ile | Glu | Glu |
| | 130 | | | | 135 | | | | | | | 140 | | | |
| Val | Lys | Gly | Leu | Phe | Lys | Ser | Glu | Asn | Cys | Pro | Lys | Val | Ile | Ser | Cys |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Phe | Ala | His | Asn | Ser | Asn | Trp | Tyr | Ile | Thr | Phe | Gln | Ser | Asp | Thr |
| | | 165 | | | | | 170 | | | | | 175 | | | |
| Asp | Ala | Gln | Gln | Ala | Phe | Lys | Tyr | Leu | Arg | Glu | Glu | Val | Lys | Thr | Phe |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Gln | Gly | Lys | Pro | Ile | Met | Ala | Arg | Ile | Lys | Ala | Ile | Asn | Thr | Phe | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Ala Lys Asn Gly Tyr Arg Leu Met Asp Ser Ser Ile Tyr Ser His Pro
 210 215 220
 Ile Gln Thr Gln Ala Gln Tyr Ala Ser Pro Val Phe Met Gln Pro Val
 225 230 235 240
 Tyr Asn Pro His Gln Gln Tyr Ser Val Tyr Ser Ile Val Pro Gln Ser
 245 250 255
 Trp Ser Pro Asn Pro Thr Pro Tyr Phe Glu Thr Pro Leu Ala Pro Phe
 260 265 270
 Pro Asn Gly Ser Phe Val Asn Gly Phe Asn Ser Pro Gly Ser Tyr Lys
 275 280 285
 Thr Asn Ala Ala Ala Met Asn Met Gly Arg Pro Phe Gln Lys Asn Arg
 290 295 300
 Val Lys Pro Gln Phe Arg Ser Ser Gly Gly Ser Glu His Ser Thr Glu
 305 310 315 320
 Gly Ser Val Ser Leu Gly Asp Gly Gln Leu Asn Arg Tyr Ser Ser Arg
 325 330 335
 Asn Phe Pro Ala Glu Arg His Asn Pro Thr Val Thr Gly His Gln Glu
 340 345 350
 Gln Thr Tyr Leu Gln Lys Glu Thr Ser Thr Leu Gln Val Glu Gln Asn
 355 360 365
 Gly Asp Tyr Gly Arg Gly Arg Arg Thr Leu Phe Arg Gly Arg Arg Arg
 370 375 380
 Arg Glu Asp Asp Arg Ile Ser Arg Pro His Pro Ser Thr Ala Glu Ser
 385 390 395 400
 Lys Ala Pro Thr Pro Lys Phe Asp Leu Leu Ala Ser Asn Phe Pro Pro
 405 410 415
 Leu Pro Gly Ser Ser Ser Arg Met Pro Gly Glu Leu Val Leu Glu Asn
 420 425 430
 Arg Met Ser Asp Val Val Lys Gly Val Tyr Lys Glu Lys Asp Asn Glu
 435 440 445
 Glu Leu Thr Ile Ser Cys Pro Val Pro Ala Asp Glu Gln Thr Glu Cys
 450 455 460
 Thr Ser Ala Gln Gln Leu Asn Met Ser Thr Ser Ser Pro Cys Ala Ala
 465 470 475 480
 Glu Leu Thr Ala Leu Ser Thr Thr Gln Gln Glu Lys Asp Leu Ile Glu
 485 490 495

Asp Ser Ser Val Gln Lys Asp Gly Leu Asn Gln Thr Thr Ile Pro Val

| | | |
|---|-----|-----|
| 500 | 505 | 510 |
| Ser Pro Pro Ser Thr Thr Lys Pro Ser Arg Ala Ser Thr Ala Ser Pro | | |
| 515 | 520 | 525 |
| Cys Asn Asn Asn Ile Asn Ala Ala Thr Ala Val Ala Leu Gln Glu Pro | | |
| 530 | 535 | 540 |
| Arg Lys Leu Ser Tyr Ala Glu Val Cys Gln Lys Pro Pro Lys Glu Pro | | |
| 545 | 550 | 555 |
| Ser Ser Val Leu Val Gln Pro Leu Arg Glu Leu Arg Ser Asn Val Val | | |
| 565 | 570 | 575 |
| Ser Pro Thr Lys Asn Glu Asp Asn Gly Ala Pro Glu Asn Ser Val Glu | | |
| 580 | 585 | 590 |
| Lys Pro His Glu Lys Pro Glu Ala Arg Ala Ser Lys Asp Tyr Ser Gly | | |
| 595 | 600 | 605 |
| Phe Arg Gly Asn Ile Ile Pro Arg Gly Ala Ala Gly Lys Ile Arg Glu | | |
| 610 | 615 | 620 |
| Gln Arg Arg Gln Phe Ser His Arg Ala Ile Pro Gln Gly Val Thr Arg | | |
| 625 | 630 | 635 |
| Arg Asn Gly Lys Glu Gln Tyr Val Pro Pro Arg Ser Pro Lys | | |
| 645 | 650 | |

<210> 2922

<211> 1224

<212> PRT

<213> Homo sapiens

<400> 2922

| | | |
|---|----|----|
| Met Pro Val Val Trp Pro Thr Leu Leu Asp Leu Ser Arg Asp Glu Cys | | |
| 1 | 5 | 10 |
| Lys Arg Ile Leu Arg Lys Leu Glu Leu Glu Ala Tyr Ala Gly Val Ile | | |
| 20 | 25 | 30 |
| Ser Ala Leu Arg Ala Gln Gly Asp Leu Thr Lys Glu Lys Lys Asp Leu | | |
| 35 | 40 | 45 |

Leu Gly Glu Leu Ser Lys Val Leu Ser Ile Ser Thr Glu Arg His Arg
 50 55 60
 Ala Glu Val Arg Arg Ala Val Asn Asp Glu Arg Leu Thr Thr Ile Ala
 65 70 75 80
 His Asn Met Ser Gly Pro Asn Ser Ser Ser Glu Trp Ser Ile Glu Gly
 85 90 95
 Arg Arg Leu Val Pro Leu Met Pro Arg Leu Val Pro Gln Thr Ala Phe
 100 105 110
 Thr Val Thr Ala Asn Ala Val Ala Asn Ala Ala Ile Gln His Asn Ala
 115 120 125
 Ser Leu Pro Val Pro Ala Glu Thr Gly Ser Lys Glu Val Val Val Cys
 130 135 140
 Tyr Ser Tyr Thr Ser Thr Thr Ser Thr Pro Thr Ser Thr Pro Val Pro
 145 150 155 160
 Ser Gly Ser Ile Ala Thr Val Lys Ser Pro Arg Pro Ala Ser Pro Ala
 165 170 175
 Ser Asn Val Val Val Leu Pro Ser Gly Ser Thr Val Tyr Val Lys Ser
 180 185 190
 Val Ser Cys Ser Asp Glu Asp Glu Lys Pro Arg Lys Arg Arg Arg Thr
 195 200 205
 Asn Ser Ser Ser Ser Ser Pro Val Val Leu Lys Glu Val Pro Lys Ala
 210 215 220
 Val Val Pro Val Ser Lys Thr Ile Thr Val Pro Val Ser Gly Ser Pro
 225 230 235 240
 Lys Met Ser Asn Ile Met Gln Ser Ile Ala Asn Ser Leu Pro Pro His
 245 250 255
 Met Ser Pro Val Lys Ile Ser Phe Thr Lys Pro Ser Thr Gln Thr Thr
 260 265 270
 Asn Thr Thr Thr Gln Lys Val Ile Ile Val Thr Thr Ser Pro Ser Ser
 275 280 285
 Thr Phe Val Pro Asn Ile Leu Ser Lys Ser His Asn Tyr Ala Ala Val
 290 295 300
 Thr Lys Leu Val Pro Thr Ser Val Ile Ala Ser Thr Thr Gln Lys Pro
 305 310 315 320
 Pro Val Val Ile Thr Ala Ser Gln Ser Ser Leu Val Ser Asn Ser Ser
 325 330 335

Ser Gly Ser Ser Ser Ser Thr Pro Ser Pro Ile Pro Asn Thr Val Ala
 340 345 350
 Val Thr Ala Val Val Ser Ser Thr Pro Ser Val Val Met Ser Thr Val
 355 360 365
 Ala Gln Gly Val Lys Ile Ile Thr Gln Gln Val Gln Pro Ser Lys Ile
 370 375 380
 Leu Pro Lys Pro Val Thr Ala Thr Leu Pro Thr Ser Ser Asn Ser Pro
 385 390 395 400
 Ile Met Val Val Ser Ser Asn Gly Ala Ile Met Thr Thr Lys Leu Val
 405 410 415
 Thr Thr Pro Thr Gly Thr Gln Ala Thr Tyr Thr Arg Pro Thr Val Ser
 420 425 430
 Pro Ser Ile Gly Arg Met Ala Ala Thr Pro Gly Ala Ala Thr Tyr Val
 435 440 445
 Lys Thr Thr Ser Gly Ser Ile Ile Thr Val Val Pro Lys Ser Leu Ala
 450 455 460
 Thr Leu Gly Gly Lys Ile Ile Ser Ser Asn Ile Val Ser Gly Thr Thr
 465 470 475 480
 Thr Lys Ile Thr Thr Ile Pro Met Thr Ser Lys Pro Asn Val Ile Val
 485 490 495
 Val Gln Lys Thr Thr Gly Lys Gly Thr Thr Ile Gln Gly Leu Pro Gly
 500 505 510
 Lys Asn Val Val Thr Thr Leu Leu Asn Ala Gly Gly Glu Lys Thr Ile
 515 520 525
 Gln Thr Val Pro Thr Gly Ala Lys Pro Ala Ile Leu Thr Ala Thr Arg
 530 535 540
 Pro Ile Thr Lys Met Ile Val Thr Gln Pro Lys Gly Ile Gly Ser Thr
 545 550 555 560
 Val Gln Pro Ala Ala Lys Ile Ile Pro Thr Lys Ile Val Tyr Gly Gln
 565 570 575
 Gln Gly Lys Thr Gln Val Leu Ile Lys Pro Lys Pro Val Thr Phe Gln
 580 585 590
 Ala Thr Val Val Ser Glu Gln Thr Arg Gln Leu Val Thr Glu Thr Leu
 595 600 605
 Gln Gln Ala Ser Arg Val Ala Glu Ala Gly Asn Ser Ser Ile Gln Glu
 610 615 620

Gly Lys Glu Glu Pro Gln Asn Tyr Thr Asp Ser Ser Tyr Ser Ser Thr
 625 630 635 640
 Glu Ser Ser Arg Ser Ser Gln Asp Ser Gln Pro Val Val His Val Ile
 645 650 655
 Ala Ser Arg Arg Gln Asp Trp Ser Glu His Glu Ile Ala Met Glu Thr
 660 665 670
 Ser Pro Thr Ile Ile Tyr Gln Asp Val Ser Ser Glu Ser Gln Ser Ala
 675 680 685
 Thr Ser Thr Ile Lys Ala Leu Leu Glu Leu Gln Gln Thr Thr Val Lys
 690 695 700
 Glu Lys Leu Glu Ser Lys Pro Arg Gln Pro Thr Ile Asp Leu Ser Gln
 705 710 715 720
 Met Ala Val Pro Ile Gln Met Thr Gln Glu Lys Arg His Ser Pro Glu
 725 730 735
 Ser Pro Ser Ile Ala Val Val Glu Ser Glu Leu Val Ala Glu Tyr Ile
 740 745 750
 Thr Thr Val Ser His Arg Ser Gln Pro Gln Gln Pro Ser Gln Pro Gln
 755 760 765
 Arg Thr Leu Leu Gln His Val Ala Gln Ser Gln Thr Ala Thr Gln Thr
 770 775 780
 Ser Val Val Val Lys Ser Ile Pro Ala Ser Ser Pro Gly Ala Ile Thr
 785 790 795 800
 His Ile Met Gln Gln Ala Leu Ser Ser His Thr Ala Phe Thr Lys His
 805 810 815
 Ser Glu Glu Leu Gly Thr Glu Glu Gly Glu Val Glu Glu Met Asp Thr
 820 825 830
 Leu Asp Pro Gln Thr Gly Leu Phe Tyr Arg Ser Ala Leu Thr Gln Ser
 835 840 845
 Gln Ser Ala Lys Gln Gln Lys Leu Ser Gln Pro Pro Leu Glu Gln Thr
 850 855 860
 Gln Leu Gln Val Lys Thr Leu Gln Cys Phe Gln Thr Lys Gln Lys Gln
 865 870 875 880
 Thr Ile His Leu Gln Ala Asp Gln Leu Gln His Lys Leu Pro Gln Met
 885 890 895
 Pro Gln Leu Ser Ile Arg His Gln Lys Leu Thr Pro Leu Gln Gln Glu
 900 905 910

Gln Ala Gln Pro Lys Pro Asp Val Gln His Thr Gln His Pro Met Val
 915 920 925
 Ala Lys Asp Arg Gln Leu Pro Thr Leu Met Ala Gln Pro Pro Gln Thr
 930 935 940
 Val Val Gln Val Leu Ala Val Lys Thr Thr Gln Gln Leu Pro Lys Leu
 945 950 955 960
 Gln Gln Ala Pro Asn Gln Pro Lys Ile Tyr Val Gln Pro Gln Thr Pro
 965 970 975
 Gln Ser Gln Met Ser Leu Pro Ala Ser Ser Glu Lys Gln Thr Ala Ser
 980 985 990
 Gln Val Glu Gln Pro Ile Ile Thr Gln Gly Ser Ser Val Thr Lys Ile
 995 1000 1005
 Thr Phe Glu Gly Arg Gln Pro Pro Thr Val Thr Lys Ile Thr Gly Gly
 1010 1015 1020
 Ser Ser Val Pro Lys Leu Thr Ser Pro Val Thr Ser Ile Ser Pro Ile
 1025 1030 1035 1040
 Gln Ala Ser Glu Lys Thr Ala Val Ser Asp Ile Leu Lys Met Ser Leu
 1045 1050 1055
 Met Glu Ala Gln Ile Asp Thr Asn Val Glu His Met Ile Val Asp Pro
 1060 1065 1070
 Pro Lys Lys Ala Leu Ala Thr Ser Met Leu Thr Gly Glu Ala Gly Ser
 1075 1080 1085
 Leu Pro Ser Thr His Met Val Val Ala Gly Met Ala Asn Ser Thr Pro
 1090 1095 1100
 Gln Gln Gln Lys Cys Arg Glu Ser Cys Ser Ser Pro Ser Thr Val Gly
 1105 1110 1115 1120
 Ser Ser Leu Thr Thr Arg Lys Ile Asp Pro Pro Ala Val Pro Ala Thr
 1125 1130 1135
 Gly Gln Phe Met Arg Ile Gln Asn Val Gly Gln Lys Lys Ala Glu Glu
 1140 1145 1150
 Ser Pro Ala Glu Ile Ile Ile Gln Ala Ile Pro Gln Tyr Ala Ile Pro
 1155 1160 1165
 Cys His Ser Ser Ser Asn Val Val Val Glu Pro Ser Gly Leu Leu Glu
 1170 1175 1180
 Leu Asn Asn Phe Thr Ser Gln Gln Leu Asp Asp Glu Glu Thr Ala Met
 1185 1190 1195 1200

Glu Gln Asp Ile Asp Ser Ser Thr Glu Asp Gly Thr Glu Pro Ser Pro
 1205 1210 1215

Ser Gln Ser Ser Ala Glu Arg Ser
 1220

<210> 2923

<211> 243

<212> PRT

<213> Homo sapiens

<400> 2923

Met Glu Arg Arg Trp Leu Ser Leu Arg Ser Ser Ser Cys Ser Ala Pro
 1 5 10 15

Arg Leu Asn Thr Ala Trp Gly Met Arg Ser Ser Pro Gln Ala Thr Ser
 20 25 30

Ser Ser Ser Arg Asn Ala Ala Ser Phe Leu Arg Leu Phe Arg Ala Thr
 35 40 45

Arg Arg Ala Pro Ser Leu Cys Arg Leu Ser Leu Cys Arg Trp Pro Ala
 50 55 60

Thr Ser Val Thr Leu Ala Gly Thr Phe Pro Ala Leu Leu Arg Arg Asp
 65 70 75 80

Asn Thr Leu Ser Cys Phe Ser Ser Arg Arg Leu Ser Arg Val Ala Ala
 85 90 95

Arg Ala Ser Ser Trp Gly Lys Ser Pro Ser Arg Cys Ser Ser Ser Lys
 100 105 110

Pro Arg Ser Pro Asn Thr Gln Ser Gly Thr Ser Arg Ser Ser Ser His
 115 120 125

Leu Thr Arg Ile Thr Phe Arg Trp Ser Arg Arg Lys Thr Cys Lys Glu
 130 135 140

Lys Gly Ser Leu Ala Gly Glu Trp Ser Lys Leu Ser Ser Cys Lys Cys
 145 150 155 160

Thr Ser Cys Asp Ser Pro Gly Gly Lys Val Ile Ser Gln Met Ala Ser
 165 170 175

Ser Leu Ser Asp Ser Thr Ser Leu Ser Ser Lys Thr Val Ser Gly Arg
 180 185 190

Pro Gly Ser Met Gln Arg Ala Ser Ser Ser Arg Pro Ala Ala Leu Arg
 195 200 205
 Cys Ser Phe Ser Arg Ser Phe Ser Gly Val His Ser Trp Leu Arg Leu
 210 215 220
 Ser Cys Phe Arg Arg Leu Ser Leu Thr Ser Asp Arg Lys Thr Ala Lys
 225 230 235 240
 Arg Leu Glu

<210> 2924

<211> 944

<212> PRT

<213> Homo sapiens

<400> 2924

Met Pro Leu Ala Gly Met Ser Leu Gly Ser Leu Lys Ser Glu Phe Val
 1 5 10 15
 Pro Ser Thr Ser Thr Lys Gln Gln Gly Pro Gln Pro Thr Leu Ser Val
 20 25 30
 Gly Gln Glu Ser Ser Ser Pro Glu Asp His Val Cys Leu Leu Asp Cys
 35 40 45
 Val Val Val Asp Leu Gln Asp Met Asp Ile Phe Ala Ala Glu Arg His
 50 55 60
 Pro Arg Glu Tyr Ser Lys Ala Pro Glu Asp Ser Ser Gly Asp Leu Ile
 65 70 75 80
 Phe Pro Ser Tyr Phe Val Arg Gln Thr Gly Gly Ser Leu Leu Thr Glu
 85 90 95
 Pro Cys Arg Leu Lys Leu Gln Val Glu Arg Asn Leu Asp Lys Glu Ile
 100 105 110
 Ser His Thr Val Pro Asp Ile Ser Ile His Gly Asn Leu Ser Ser Val
 115 120 125
 His Cys Ser Leu Asp Leu Tyr Lys Tyr Lys Leu Ile Arg Gly Leu Leu
 130 135 140
 Glu Asn Asn Leu Gly Glu Pro Ile Glu Glu Phe Met Arg Pro Tyr Asp
 145 150 155 160

Leu Gln Asp Pro Arg Ile His Thr Val Leu Ser Gly Glu Val Tyr Thr
 165 170 175
 Cys Met Cys Phe Leu Ile Asp Met Val Asn Val Ser Leu Glu Leu Lys
 180 185 190
 Asp Pro Lys Arg Lys Glu Gly Ala Gly Ser Leu Ala Arg Phe Asp Phe
 195 200 205
 Lys Lys Cys Lys Leu Leu Tyr Glu Ser Phe Ser Asn Gln Thr Lys Ser
 210 215 220
 Ile Asn Leu Val Ser His Ser Met Met Ala Phe Asp Thr Arg Tyr Ala
 225 230 235 240
 Gly Gln Lys Thr Ser Pro Gly Met Thr Asn Val Phe Ser Cys Ile Phe
 245 250 255
 Gln Pro Ala Lys Asn Ser Ser Thr Thr Gln Gly Ser Ile Gln Ile Glu
 260 265 270
 Leu His Phe Arg Ser Thr Lys Asp Ser Ser Cys Phe Thr Val Val Leu
 275 280 285
 Asn Asn Leu Arg Val Phe Leu Ile Phe Asp Trp Leu Leu Leu Val His
 290 295 300
 Asp Phe Leu His Thr Pro Ser Asp Ile Lys Lys Gln Asn His Val Thr
 305 310 315 320
 Pro Ser Arg His Arg Asn Ser Ser Ser Glu Ser Ala Ile Val Pro Lys
 325 330 335
 Thr Val Lys Ser Gly Val Val Thr Lys Arg Ser Ser Leu Pro Val Ser
 340 345 350
 Asn Glu Arg His Leu Glu Val Lys Val Asn Val Thr Gly Thr Glu Phe
 355 360 365
 Val Val Ile Glu Asp Val Ser Cys Phe Asp Thr Asn Ala Ile Ile Leu
 370 375 380
 Lys Gly Thr Thr Val Leu Thr Tyr Lys Pro Arg Phe Val Asp Arg Pro
 385 390 395 400
 Phe Ser Gly Ser Leu Phe Gly Ile Glu Val Phe Ser Cys Arg Leu Gly
 405 410 415
 Asn Glu His Asp Thr Ala Leu Ser Ile Val Asp Pro Val Gln Ile Gln
 420 425 430
 Met Glu Leu Val Gly Asn Ser Ser Tyr Gln Asn Ser Ser Gly Leu Met
 435 440 445

Asp Ala Phe Asn Ser Glu Asp Phe Pro Pro Val Leu Glu Ile Gln Leu
 450 455 460
 Gln Ala Leu Asp Ile Arg Leu Ser Tyr Asn Asp Val Gln Leu Phe Leu
 465 470 475 480
 Ala Ile Ala Lys Ser Ile Pro Glu Gln Ala Asn Ala Ala Val Pro Asp
 485 490 495
 Ser Val Ala Leu Glu Ser Asp Ser Val Gly Thr Tyr Leu Pro Gly Ala
 500 505 510
 Ser Arg Val Gly Glu Glu Ile Arg Glu Gly Thr Arg His Thr Leu Asp
 515 520 525
 Pro Val Leu Glu Leu Gln Leu Ala Arg Leu Gln Glu Leu Gly Phe Ser
 530 535 540
 Met Asp Asp Cys Arg Lys Ala Leu Leu Ala Cys Gln Gly Gln Leu Lys
 545 550 555 560
 Lys Ala Ala Ser Trp Leu Phe Lys Asn Ala Glu Pro Leu Lys Ser Leu
 565 570 575
 Ser Leu Ala Ser Thr Ser Arg Asp Ser Pro Gly Ala Val Ala Ala Pro
 580 585 590
 Leu Ile Ser Gly Val Glu Ile Lys Ala Glu Ser Val Cys Ile Cys Phe
 595 600 605
 Ile Asp Asp Cys Met Asp Cys Asp Val Pro Leu Ala Glu Leu Thr Phe
 610 615 620
 Ser Arg Leu Asn Phe Leu Gln Arg Val Arg Thr Ser Pro Glu Gly Tyr
 625 630 635 640
 Ala His Phe Thr Leu Ser Gly Asp Tyr Tyr Asn Arg Ala Leu Ser Gly
 645 650 655

 Trp Glu Pro Phe Ile Glu Pro Trp Pro Cys Ser Val Ser Trp Gln Gln
 660 665 670
 Gln Ala Ala Ser Arg Leu His Pro Pro Arg Leu Lys Leu Glu Ala Lys
 675 680 685
 Ala Lys Pro Arg Leu Asp Ile Asn Ile Thr Ser Val Leu Ile Asp Gln
 690 695 700
 Tyr Val Ser Thr Lys Glu Ser Trp Met Ala Asp Tyr Cys Lys Asp Asp
 705 710 715 720
 Lys Asp Ile Glu Ser Ala Lys Ser Glu Asp Trp Met Gly Ser Ser Val

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 725 | | 730 | | 735 | | | | | | | | | | |
| Asp | Pro | Pro | Cys | Phe | Gly | Gln | Thr | Glu | Val | Lys | Thr | Pro | Lys | Arg | Arg |
| | 740 | | 745 | | 750 | | | | | | | | | | |
| Gln | Pro | Phe | Val | Pro | Phe | Ala | Leu | Arg | Asn | His | Thr | Gly | Cys | Thr | Leu |
| | 755 | | 760 | | 765 | | | | | | | | | | |
| Trp | Phe | Ala | Thr | Leu | Thr | Thr | Thr | Pro | Thr | Arg | Ala | Ala | Leu | Ser | His |
| | 770 | | 775 | | 780 | | | | | | | | | | |
| Ser | Gly | Ser | Pro | Gly | Val | Val | Pro | Glu | Gly | Asn | Gly | Thr | Phe | Leu | Asp |
| 785 | | | 790 | | 795 | | | | | | | | | | 800 |
| Asp | Thr | His | Asn | Val | Ser | Glu | Trp | Arg | Glu | Val | Leu | Thr | Gly | Glu | Glu |
| | 805 | | 810 | | 815 | | | | | | | | | | |
| Ile | Pro | Phe | Glu | Phe | Glu | Ala | Arg | Gly | Lys | Leu | Arg | His | Arg | His | Thr |
| | 820 | | 825 | | 830 | | | | | | | | | | |
| His | Asp | Leu | Arg | Ile | His | Gln | Leu | Gln | Val | Arg | Val | Asn | Gly | Trp | Glu |
| | 835 | | 840 | | 845 | | | | | | | | | | |
| Gln | Val | Ser | Pro | Val | Ser | Val | Asp | Lys | Val | Gly | Thr | Phe | Phe | Arg | Tyr |
| | 850 | | 855 | | 860 | | | | | | | | | | |
| Ala | Ala | Pro | Asp | Lys | Asn | Ser | Ser | Ser | Ser | Thr | Ile | Gly | Ser | Pro | Ser |
| 865 | | | 870 | | 875 | | | | | | | | | | 880 |
| Ser | Arg | Thr | Asn | Ile | Ile | His | Pro | Gln | Val | Tyr | Phe | Ser | Ser | Leu | Pro |
| | 885 | | 890 | | 895 | | | | | | | | | | |
| Pro | Val | Arg | Val | Val | Phe | Ala | Val | Thr | Met | Glu | Gly | Ser | Ala | Arg | Lys |
| | 900 | | 905 | | 910 | | | | | | | | | | |
| Val | Ile | Thr | Val | Arg | Ser | Ala | Leu | Ile | Val | Arg | Asn | Arg | Leu | Glu | Thr |
| | 915 | | 920 | | 925 | | | | | | | | | | |
| Pro | Met | Glu | Leu | Arg | Leu | Asp | Ser | Pro | Ser | Ala | Pro | Asp | Ser | Met | Phe |
| | 930 | | 935 | | 940 | | | | | | | | | | |

<210> 2925

<211> 293

<212> PRT

<213> Homo sapiens

<400> 2925

Met Thr Gly Leu Tyr Glu Leu Val Trp Arg Val Leu His Ala Leu Leu

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Cys Leu His Arg Thr Leu Thr Ser Trp Leu Arg Val Arg Phe Gly Thr | | | |
| 20 | 25 | 30 | |
| Trp Asn Trp Ile Trp Arg Arg Cys Cys Arg Ala Ala Ser Ala Ala Val | | | |
| 35 | 40 | 45 | |
| Leu Ala Pro Leu Gly Phe Thr Leu Arg Lys Pro Pro Ala Val Gly Arg | | | |
| 50 | 55 | 60 | |
| Asn Arg Arg His His Arg His Pro Arg Gly Gly Ser Cys Leu Ala Ala | | | |
| 65 | 70 | 75 | 80 |
| Ala His His Arg Met Arg Trp Arg Ala Asp Gly Arg Ser Leu Glu Lys | | | |
| 85 | 90 | 95 | |
| Leu Pro Val His Met Gly Leu Val Ile Thr Glu Val Glu Gln Glu Pro | | | |
| 100 | 105 | 110 | |
| Ser Phe Ser Asp Ile Ala Ser Leu Val Val Trp Cys Met Ala Val Gly | | | |
| 115 | 120 | 125 | |
| Ile Ser Tyr Ile Ser Val Tyr Asp His Gln Gly Ile Phe Lys Arg Asn | | | |
| 130 | 135 | 140 | |
| Asn Ser Arg Leu Met Asp Glu Ile Leu Lys Gln Gln Gln Glu Leu Leu | | | |
| 145 | 150 | 155 | 160 |
| Gly Leu Asp Cys Ser Lys Tyr Ser Pro Glu Phe Ala Asn Ser Asn Asp | | | |
| 165 | 170 | 175 | |
| Lys Asp Asp Gln Val Leu Asn Cys His Leu Ala Val Lys Val Leu Ser | | | |
| 180 | 185 | 190 | |
| Pro Glu Asp Gly Lys Ala Asp Ile Val Arg Ala Ala Gln Asp Phe Cys | | | |
| 195 | 200 | 205 | |
| Gln Leu Val Ala Gln Lys Gln Lys Arg Pro Thr Asp Leu Asp Val Asp | | | |
| 210 | 215 | 220 | |
| Thr Leu Ala Ser Leu Leu Ser Ser Asn Gly Cys Pro Asp Pro Asp Leu | | | |
| 225 | 230 | 235 | 240 |
| Val Leu Lys Phe Gly Pro Val Asp Ser Thr Leu Gly Phe Leu Pro Trp | | | |
| 245 | 250 | 255 | |
| His Ile Arg Leu Thr Glu Thr Val Ser Leu Pro Ser His Leu Asn Ile | | | |
| 260 | 265 | 270 | |
| Ser Tyr Glu Asp Phe Phe Ser Ala Leu Arg Gln Tyr Ala Ala Cys Glu | | | |
| 275 | 280 | 285 | |
| Gln Arg Leu Gly Lys | | | |

290

<210> 2926

<211> 286

<212> PRT

<213> Homo sapiens

<400> 2926

```

Met Pro Cys Gly Thr Val Val Thr Thr Val Thr Ala Val Lys Thr Lys
  1             5             10             15
Pro Arg Val Asp Val Gly Arg Ala Ser Pro Leu Ser Ser Asp Ser Pro
      20             25             30
Val Lys Thr Pro Ile Lys Val Lys Val Ile Glu Lys Asp Ile Ser Val
      35             40             45
Gln Ala Ile Ala Cys Arg Ser Ala Pro Val Ser Lys Thr Leu Ser Ser
      50             55             60
Ser Asp Thr Glu Leu Leu Val Leu Asn Gly Ser Asp Pro Val Ala Glu
      65             70             75             80
Val Ala Ile Arg Gln Leu Ser Glu Ser Ser Lys Leu Lys Leu Lys Ser
      85             90             95
Pro Arg Lys Lys Ser Thr Ile Ile Ile Ser Gly Ile Ser Lys Thr Ser
      100            105            110
Leu Ser Gln Asp His Asp Ala Ala Leu Met Gln Gly Tyr Thr Ala Ser
      115            120            125
Val Asp Ser Thr His Gln Glu Asp Ala Pro Ser His Pro Glu Arg Ala
      130            135            140
Ala Ala Ser Ala Pro Pro Glu Glu Ala Glu Ser Ala Gln Ala Ser Leu
      145            150            155            160
Ala Pro Lys Pro Gln Glu Asp Glu Leu Asp Ser Trp Asp Leu Glu Lys
      165            170            175
Glu Pro Gln Ala Ala Ala Trp Ser Ser Gln Val Leu Leu Asp Pro Asp
      180            185            190
Gly Asp Glu Leu Ser Glu Ser Ser Met Ser Val Leu Glu Pro Gly Thr
      195            200            205
Ala Lys Lys His Lys Gly Gly Ile Leu Arg Lys Gly Ala Lys Leu Phe

```

| | | | |
|---|-----|-----|-----|
| 210 | 215 | 220 | |
| Phe Arg Arg Arg His Gln Gln Lys Asp Pro Gly Met Ser Gln Ser His | | | |
| 225 | 230 | 235 | 240 |
| Asn Asp Leu Val Phe Leu Glu Gln Pro Glu Gly Ser Arg Arg Lys Gly | | | |
| | 245 | 250 | 255 |
| Ile Thr Leu Thr Arg Thr Leu Asn Lys Lys Leu Leu Ser Arg His Arg | | | |
| | 260 | 265 | 270 |
| Asn Lys Asn Thr Met Asn Gly Ala Pro Val Glu Pro Cys Thr | | | |
| | 275 | 280 | 285 |

<210> 2927

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2927

| | | |
|---|-----|-----|
| Met Phe Glu Asn Leu Asn Thr Ala Leu Thr Pro Lys Leu Gln Ala Ser | | |
| 1 | 5 | 10 |
| Arg Ser Phe Pro His Leu Ser Lys Pro Val Ala Pro Gly Ser Ala Pro | | |
| | 20 | 30 |
| Leu Gly Ser Gly Glu Pro Gly Gly Pro Gly Leu Trp Val Gly Ser Ser | | |
| | 35 | 45 |
| Gln His Leu Lys Asn Leu Gly Lys Ala Met Gly Ala Lys Val Asn Asp | | |
| | 50 | 60 |
| Phe Leu Arg Arg Lys Glu Pro Ser Ser Leu Gly Ser Val Gly Val Thr | | |
| | 65 | 80 |
| Glu Ile Asn Lys Thr Ala Gly Ala Gln Leu Ala Ser Gly Thr Asp Ala | | |
| | 85 | 95 |
| Ala Pro Glu Ala Trp Leu Glu Asp Glu Arg Ser Val Leu Gln Glu Thr | | |
| | 100 | 110 |
| Phe Pro Arg Leu Asp Pro Pro Pro Pro Ile Thr Arg Lys Arg Thr Pro | | |
| | 115 | 125 |
| Arg Ala Leu Lys Thr Thr Gln Asp Met Leu Ile Ser Ser Gln Pro Val | | |
| | 130 | 140 |
| Leu Ser Ser Leu Glu Tyr Gly Thr Glu Pro Ser Pro Gly Gln Ala Gln | | |

145 150 155 160
 Asp Ser Ala Pro Thr Ala Gln Pro Asp Val Pro Ala Asp Ala Ser Gln
 165 170 175
 Pro Glu Ala Thr Met Glu Arg Glu Glu Arg Gly Lys Val Leu Pro Asn
 180 185 190
 Gly Glu Val Ser Leu Ser Val Pro Asp Leu Ile His Lys Asp Ser Gln
 195 200 205
 Asp Glu Ser Lys Leu Lys Met Thr Glu Cys Arg Arg Ala Ser Ser Pro
 210 215 220
 Ser Leu Ile Glu Arg Asn Gly Phe Lys Leu Ser Leu Ser Pro Ile Ser
 225 230 235 240
 Leu Ala Glu Ser Trp Glu Asp Gly Ser Pro Pro Pro Gln Ala Arg Thr
 245 250 255
 Ser Ser Leu Asp Asn Glu Gly Pro His Pro Asp Leu Leu Ser Phe Glu
 260 265 270

<210> 2928

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2928

Met Leu Pro Arg Leu Val Ser Asn Ser Trp Pro Gln Ser Asp Pro Pro
 1 5 10 15
 Ala Trp Ala Phe Gln Ser Ala Gly Ile Thr Gly Val Ser Cys Arg Ala
 20 25 30
 Arg Pro Gln Leu Phe Leu Val Asn Pro Phe Leu Ser Pro Arg Val Leu
 35 40 45
 Ala Leu Thr Leu His Ser Arg Phe Ile Gly Ala Cys Ser Lys Pro Gly
 50 55 60
 Ala Gly Asp Glu Glu Glu Lys Asp Pro Ser Tyr Pro Ser Ile Gly Phe
 65 70 75 80
 Phe Trp Lys Gly Gly Arg Asn Ala Asp Leu Thr Leu Tyr Phe Thr Val
 85 90 95

Ile Cys Asp Leu Cys Tyr Gly Arg Gly Lys His Ser Ala Trp Glu Gln
 100 105 110
 Gly Asp Val Ala Ser Ser Pro Gly Ser Gly Arg Gln Gly Thr Val Lys
 115 120 125
 Ala

<210> 2929

<211> 553

<212> PRT

<213> Homo sapiens

<400> 2929

Met Asn Lys Asn Thr Ser Thr Val Val Ser Pro Ser Leu Leu Glu Lys
 1 5 10 15
 Asp Pro Ala Phe Gln Met Ile Thr Ile Ala Lys Glu Thr Gly Leu Gly
 20 25 30
 Leu Lys Val Leu Gly Gly Ile Asn Arg Asn Glu Gly Pro Leu Val Tyr
 35 40 45
 Ile Gln Glu Ile Ile Pro Gly Gly Asp Cys Tyr Lys Asp Gly Arg Leu
 50 55 60
 Lys Pro Gly Asp Gln Leu Val Ser Val Asn Lys Glu Ser Met Ile Gly
 65 70 75 80
 Val Ser Phe Glu Glu Ala Lys Ser Ile Ile Thr Arg Ala Lys Leu Arg
 85 90 95
 Leu Glu Ser Ala Trp Glu Ile Ala Phe Ile Arg Gln Lys Ser Asp Asn
 100 105 110
 Ile Gln Pro Glu Asn Leu Ser Cys Thr Ser Leu Ile Glu Ala Ser Gly
 115 120 125
 Glu Tyr Gly Pro Gln Ala Ser Thr Leu Ser Leu Phe Ser Ser Pro Pro
 130 135 140
 Glu Ile Leu Ile Pro Lys Thr Ser Ser Thr Pro Lys Thr Asn Asn Asp
 145 150 155 160
 Ile Leu Ser Ser Cys Glu Ile Lys Thr Gly Tyr Asn Lys Thr Val Gln
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Ile | Thr | Ser | Glu | Asn | Ser | Thr | Val | Gly | Leu | Ser | Asn | Thr | Asp |
| 180 | | | | 185 | | | | 190 | | | | | | | |
| Val | Ala | Ser | Ala | Trp | Thr | Glu | Asn | Tyr | Gly | Leu | Gln | Glu | Lys | Ile | Ser |
| 195 | | | | 200 | | | | 205 | | | | | | | |
| Leu | Asn | Pro | Ser | Val | Arg | Phe | Lys | Ala | Glu | Lys | Leu | Glu | Met | Ala | Leu |
| 210 | | | | 215 | | | | 220 | | | | | | | |
| Asn | Tyr | Leu | Gly | Ile | Gln | Pro | Thr | Lys | Glu | Gln | His | Gln | Ala | Leu | Arg |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Gln | Gln | Val | Gln | Ala | Asp | Ser | Lys | Gly | Thr | Val | Ser | Phe | Gly | Asp | Phe |
| 245 | | | | 250 | | | | 255 | | | | | | | |
| Val | Gln | Val | Ala | Arg | Asn | Leu | Phe | Cys | Leu | Gln | Leu | Asp | Glu | Val | Asn |
| 260 | | | | 265 | | | | 270 | | | | | | | |
| Val | Gly | Ala | His | Glu | Ile | Ser | Asn | Ile | Leu | Asp | Ser | Gln | Leu | Leu | Pro |
| 275 | | | | 280 | | | | 285 | | | | | | | |
| Cys | Asp | Ser | Ser | Glu | Ala | Asp | Glu | Met | Glu | Arg | Leu | Lys | Cys | Glu | Arg |
| 290 | | | | 295 | | | | 300 | | | | | | | |
| Asp | Asp | Ala | Leu | Lys | Glu | Val | Asn | Thr | Leu | Lys | Glu | Lys | Leu | Leu | Glu |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Ser | Asp | Lys | Gln | Arg | Lys | Gln | Leu | Thr | Glu | Glu | Leu | Gln | Asn | Val | Lys |
| 325 | | | | 330 | | | | 335 | | | | | | | |
| Gln | Glu | Ala | Lys | Ala | Val | Val | Glu | Glu | Thr | Arg | Ala | Leu | Arg | Ser | Arg |
| 340 | | | | 345 | | | | 350 | | | | | | | |
| Ile | His | Leu | Ala | Glu | Ala | Ala | Gln | Arg | Gln | Ala | His | Gly | Met | Glu | Met |
| 355 | | | | 360 | | | | 365 | | | | | | | |
| Asp | Tyr | Glu | Glu | Val | Ile | Arg | Leu | Leu | Glu | Ala | Lys | Ile | Thr | Glu | Leu |
| 370 | | | | 375 | | | | 380 | | | | | | | |
| Lys | Ala | Gln | Leu | Ala | Asp | Tyr | Ser | Asp | Gln | Asn | Lys | Glu | Ser | Val | Gln |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Asp | Leu | Lys | Lys | Arg | Ile | Met | Val | Leu | Asp | Cys | Gln | Leu | Arg | Lys | Ser |
| 405 | | | | 410 | | | | 415 | | | | | | | |
| Glu | Met | Ala | Arg | Lys | Thr | Phe | Glu | Ala | Ser | Thr | Glu | Lys | Leu | Leu | His |
| 420 | | | | 425 | | | | 430 | | | | | | | |
| Phe | Val | Glu | Ala | Ile | Gln | Glu | Val | Phe | Ser | Asp | Asn | Ser | Thr | Pro | Leu |
| 435 | | | | 440 | | | | 445 | | | | | | | |
| Ser | Asn | Leu | Ser | Glu | Arg | Arg | Ala | Val | Leu | Ala | Ser | Gln | Thr | Ser | Leu |
| 450 | | | | 455 | | | | 460 | | | | | | | |

Thr Pro Leu Gly Arg Asn Gly Arg Ser Ile Pro Ala Thr Leu Ala Leu
 465 470 475 480
 Glu Ser Lys Glu Leu Val Lys Ser Val Arg Ala Leu Leu Asp Met Asp
 485 490 495
 Cys Leu Pro Tyr Gly Trp Glu Glu Ala Tyr Thr Ala Asp Gly Ile Lys
 500 505 510
 Tyr Phe Ile Asn His Val Thr Gln Thr Thr Ser Trp Ile His Pro Val
 515 520 525
 Met Ser Val Leu Asn Leu Ser Arg Ser Glu Glu Asn Glu Glu Asp Cys
 530 535 540
 Ser Arg Glu Leu Pro Asn Gln Lys Ser
 545 550

<210> 2930

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2930

Met Glu Ser Arg Leu Ser Ser Arg Leu Glu Tyr Ser Asp Thr Ile Leu
 1 5 10 15
 Ala His Cys Asn Leu His Leu Gln Gly Ser Ser Ser Ser Pro Ala Ser
 20 25 30
 Ala Ser Gln Val Ala Gly Ile Ile Asp Thr Cys His His Ala Gln Leu
 35 40 45
 Ile Phe Val Phe Leu Val Glu Met Gly Phe His His Val Gly Gln Ala
 50 55 60
 Gly Leu Glu Leu Leu Thr Ser Ser Asp Pro Pro Thr Ser Ala Ser Gln
 65 70 75 80
 Thr Ala Gly Ile Thr Gly Met Ser His Tyr Thr Gln Pro Leu Phe Ala
 85 90 95
 Ser Leu Leu Thr Gln Phe Trp Val Pro Gly Lys Thr Phe Pro Glu Val
 100 105 110
 Arg Leu Pro Ser
 115

<210> 2931

<211> 133

<212> PRT

<213> Homo sapiens

<400> 2931

```

Met Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile Ser Ala Pro Cys
 1             5             10             15
Ser Leu His Leu Leu Gly Ser Ser Asn Pro Thr Pro Ser Ala Ser Gln
          20             25             30
Val Ala Gly Thr Ala Gly Ala Gly His His Val Gln Leu Ile Phe Val
          35             40             45
Phe Phe Val Asp Met Gly Phe His His Val Ala Gln Ala Gly Leu Glu
          50             55             60
Leu Leu Ser Ser Ser Asp Leu Pro Ala Ser Thr Thr Gln Asn Ala Gly
          65             70             75             80
Ile Thr Val Met Ser Tyr Cys Thr Pro Ser Ser Gly Ile Val Ser Ser
          85             90             95
Glu Val Thr Asn Val Pro Gln Asn His Tyr Ala Met Gln Arg His Ala
          100            105            110
Leu Lys Thr Thr Gly Ser Leu Gly Thr Val Thr His Ala Cys Asn Pro
          115            120            125
Ser Ala Leu Arg Gly
          130

```

<210> 2932

<211> 261

<212> PRT

<213> Homo sapiens

<400> 2932

```

Met Leu Pro Gly Trp Asp Leu Cys Asn Ser Gly Met Ile Lys Asp Tyr
 1             5             10             15

```

Ser Gly Val Asn Leu Phe Ser Arg Lys Val Leu Asp Leu Ser Asp Lys
 20 25 30
 Tyr Thr Ala Thr Leu Pro Asn Gln Val Gly Ile Pro Arg Gly Leu Glu
 35 40 45
 Asn Asn Cys Asp Ser Leu Arg Glu Ser Asp Thr Ile Val Tyr Leu Leu
 50 55 60
 Ser Arg Leu Phe Leu Val Asn Lys Leu Val Asn Met Pro Leu Glu Leu
 65 70 75 80
 Ala Cys Arg Val Gly Ser Ser Phe Arg Met Glu Ser Ile His Asn Lys
 85 90 95
 Met Arg Gly Ala Gly Asn Asp Ile Leu Asn Met Ser Ser Phe Tyr Ser
 100 105 110
 Cys Leu Arg Asn Gly Lys Asn Glu Ser His Val Pro Glu Ala Asp Leu
 115 120 125
 Ser Leu Leu Lys Leu Ile Ser Cys Trp Arg Asp Gln Ser Val Gln Val
 130 135 140
 Thr Glu Ala Ile Gln Ala Val Leu Leu Ala Glu Val Gln Gln His Met
 145 150 155 160
 Lys Ser Leu Gly Lys Ile Pro Val Asn Ser Gln Pro Val Ser Met Ala
 165 170 175
 Glu Asn Gly Asn Cys Glu Met Lys Gln Met Leu Pro Lys Leu Glu Trp
 180 185 190
 Thr Glu Glu Leu Glu Leu Gln Cys Val Arg Asn Thr Leu Pro Leu Gln
 195 200 205
 Thr Pro Val Ser Pro Val Lys His Asp Ser Asn Ser Asn Ser Ala Asn
 210 215 220
 Phe Gln Asp Val Glu Asp Met Pro Asp Arg Cys Ala Leu Glu Glu Ser
 225 230 235 240
 Glu Ser Pro Gly Glu Pro Arg His His Ser Trp Ile Ala Lys Val Cys
 245 250 255
 Pro Cys Lys Val Ser
 260

<210> 2933

<211> 1020

<212> PRT

<213> Homo sapiens

<400> 2933

```

Met Glu Asn Ile Leu Cys Ile Cys Val His Pro His Ile Phe Gln Gly
  1             5             10             15
Trp Lys Asp Leu Leu Glu Ala Arg Leu Ile Lys His Gln Asp Glu Ile
      20             25             30
Ser Ser Gln Cys Ile Ser Ala Leu Ser Leu Glu Glu Ile Asn Gly Thr
      35             40             45
Ile Leu Lys Leu Lys Ser Val Thr Gln Ser Ser Lys Arg Leu Leu Pro
      50             55             60
Ser Ile Gly Leu Ser Thr Val Leu Leu Lys Lys Glu Glu Asp Ile Met
      65             70             75             80
Thr Ala Leu Glu Ile Ile Cys Glu Asn Glu Cys Glu Gly Thr Leu Leu
      85             90             95
Glu Lys Asp Lys Asn Lys Phe Leu Glu Phe Lys Ala Ser Lys Glu Glu
      100            105            110
Asp Phe Tyr Arg Gly Gly Lys Val Ser Trp Trp Asn Phe Tyr Phe Ser
      115            120            125
Ser Glu Ser Tyr Ser Ser Pro Phe Val Lys Arg Asp Lys Tyr Glu Arg
      130            135            140
Leu Glu Ala Met Ile Gln Asn Cys Ala Asp Ser Ser Lys Pro Thr Ser
      145            150            155            160
Thr Lys Ile Ile His Leu Tyr His His Pro Gly Cys Gly Gly Thr Thr
      165            170            175
Leu Ala Met His Ile Leu Trp Glu Leu Arg Lys Lys Phe Arg Cys Ala
      180            185            190
Val Leu Lys Asn Lys Thr Val Asp Phe Ser Glu Ile Gly Glu Gln Val
      195            200            205
Thr Ser Leu Ile Thr Tyr Gly Ala Met Asn Arg Gln Glu Tyr Val Pro
      210            215            220
Val Leu Leu Leu Val Asp Asp Phe Glu Glu Gln Asp Asn Val Tyr Leu
      225            230            235            240
Leu Gln Tyr Ser Ile Gln Thr Ala Ile Ala Lys Lys Tyr Ile Arg Tyr
      245            250            255

```

Glu Lys Pro Leu Val Ile Ile Leu Asn Cys Met Arg Ser Gln Asn Pro
 260 265 270
 Glu Lys Ser Ala Arg Thr Pro Asp Ser Ile Ala Val Ile Gln Gln Leu
 275 280 285
 Ser Pro Lys Glu Gln Arg Ala Phe Glu Leu Lys Leu Lys Glu Ile Lys
 290 295 300
 Glu Gln His Lys Asn Phe Glu Asp Phe Tyr Ser Phe Met Ile Met Lys
 305 310 315 320
 Thr Asn Phe Asn Lys Glu Tyr Ile Glu Asn Val Val Arg Asn Ile Leu
 325 330 335
 Lys Gly Gln Asn Ile Phe Thr Lys Glu Ala Lys Leu Phe Ser Phe Leu
 340 345 350
 Ala Leu Leu Asn Ser Tyr Val Pro Asp Thr Thr Ile Ser Leu Ser Gln
 355 360 365
 Cys Glu Lys Phe Leu Gly Ile Gly Asn Lys Lys Ala Phe Trp Gly Thr
 370 375 380
 Glu Lys Phe Glu Asp Lys Met Gly Thr Tyr Ser Thr Ile Leu Ile Lys
 385 390 395 400
 Thr Glu Val Ile Glu Cys Gly Asn Tyr Cys Gly Val Arg Ile Ile His
 405 410 415
 Ser Leu Ile Ala Glu Phe Ser Leu Glu Glu Leu Lys Lys Ser Tyr His
 420 425 430
 Leu Asn Lys Ser Gln Ile Met Leu Asp Met Leu Thr Glu Asn Leu Phe
 435 440 445
 Phe Asp Thr Gly Met Gly Lys Ser Lys Phe Leu Gln Asp Met His Thr
 450 455 460
 Leu Leu Leu Thr Arg His Arg Asp Glu His Glu Gly Glu Thr Gly Asn
 465 470 475 480
 Trp Phe Ser Pro Phe Ile Glu Ala Leu His Lys Asp Glu Gly Asn Glu
 485 490 495
 Ala Val Glu Ala Val Leu Leu Glu Ser Ile His Arg Phe Asn Pro Asn
 500 505 510
 Ala Phe Ile Cys Gln Ala Leu Ala Arg His Phe Tyr Ile Lys Lys Lys
 515 520 525
 Asp Phe Gly Asn Ala Leu Asn Trp Ala Lys Gln Ala Lys Ile Ile Glu
 530 535 540

Ser Arg Leu Val Lys Pro Val Glu Lys Leu Lys Asp Gln Leu Arg Glu
 835 840 845
 Val Leu Gln Pro Ile Gly Leu Thr Tyr Gln Phe Ser Glu Pro Tyr Phe
 850 855 860
 Leu Ala Ser Leu Leu Phe Trp Pro Glu Asn Gln Gln Leu Asp Gln His
 865 870 875 880
 Ser Glu Gln Met Lys Glu Tyr Ala Gln Ala Leu Lys Asn Ser Phe Lys
 885 890 895
 Gly Gln Tyr Lys His Met His Arg Thr Lys Gln Pro Ile Ala Tyr Phe
 900 905 910
 Phe Leu Gly Lys Gly Lys Arg Leu Glu Arg Leu Val His Lys Gly Lys
 915 920 925
 Ile Asp Gln Cys Phe Lys Lys Thr Pro Asp Ile Asn Ser Leu Trp Gln
 930 935 940
 Ser Gly Asp Val Trp Lys Glu Glu Lys Val Gln Glu Leu Leu Leu Arg
 945 950 955 960
 Leu Gln Gly Arg Ala Glu Asn Asn Cys Leu Tyr Ile Glu Tyr Gly Ile
 965 970 975
 Asn Glu Lys Ile Thr Ile Pro Ile Thr Pro Ala Phe Leu Gly Gln Leu
 980 985 990
 Arg Ser Gly Arg Ser Ile Glu Lys Val Ser Phe Tyr Leu Gly Phe Ser
 995 1000 1005
 Ile Gly Gly Pro Leu Ala Tyr Asp Ile Glu Ile Val
 1010 1015 1020

<210> 2934

<211> 220

<212> PRT

<213> Homo sapiens

<400> 2934

Met Glu Asp Gln Met Asn Glu Met Lys Cys Glu Glu Lys Phe Arg Glu
 1 5 10 15
 Lys Arg Ile Lys Arg Asn Glu Gln Ser Leu Gln Glu Ile Trp Asp Tyr
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Lys | Arg | Pro | Asn | Leu | Arg | Leu | Ile | Ala | Val | Pro | Glu | Ser | Asp | Gly |
| 35 | | | | 40 | | | | 45 | | | | | | | |
| Glu | Asn | Gly | Thr | Lys | Leu | Glu | Asn | Thr | Leu | Arg | Asp | Ile | Ile | Gln | Glu |
| 50 | | | | 55 | | | | 60 | | | | | | | |
| Asn | Phe | Pro | Pro | Asp | Asn | Leu | Val | Arg | Gln | Ala | Asn | Ile | Gln | Ile | Gln |
| 65 | | | | 70 | | | | 75 | | | | 80 | | | |
| Glu | Ile | Gln | Arg | Thr | Pro | Gln | Arg | Tyr | Pro | Pro | Arg | Arg | Ala | Thr | Pro |
| | | | | 85 | | | | 90 | | | | 95 | | | |
| Arg | His | Ile | Ile | Val | Arg | Phe | Thr | Lys | Val | Glu | Met | Lys | Glu | Lys | Ile |
| 100 | | | | 105 | | | | 110 | | | | | | | |
| Leu | Arg | Val | Ala | Arg | Glu | Gln | Gly | Arg | Val | Thr | His | Lys | Gly | Lys | Arg |
| 115 | | | | 120 | | | | 125 | | | | | | | |
| Ile | Arg | Gln | Thr | Ala | Asp | Leu | Ser | Ala | Glu | Thr | Leu | Lys | Ala | Arg | Arg |
| 130 | | | | 135 | | | | 140 | | | | | | | |
| Glu | Trp | Gly | Pro | Ile | Phe | Asn | Ile | Leu | Lys | Glu | Gln | Asn | Phe | Gln | Ala |
| 145 | | | | 150 | | | | 155 | | | | 160 | | | |
| Arg | Ile | Ser | Tyr | Pro | Ala | Lys | Leu | Ser | Phe | Ile | Ser | Glu | Gly | Glu | Ile |
| | | | | 165 | | | | 170 | | | | 175 | | | |
| Lys | Cys | Phe | Thr | Asn | Lys | Gln | Met | Leu | Arg | Asp | Phe | Val | Thr | Thr | Arg |
| 180 | | | | 185 | | | | 190 | | | | | | | |
| Pro | Ala | Ala | Lys | Glu | Leu | Leu | Lys | Glu | Ala | Leu | Asn | Met | Glu | Arg | Asn |
| 195 | | | | 200 | | | | 205 | | | | | | | |
| Asn | Trp | Tyr | Gln | Pro | Leu | Gln | Lys | His | Ala | Lys | Leu | | | | |
| 210 | | | | 215 | | | | 220 | | | | | | | |

<210> 2935

<211> 118

<212> PRT

<213> Homo sapiens

<400> 2935

Met Arg Lys Cys Thr Lys Gly Gln Ser Leu Pro Ile Phe Thr Pro Arg
1 5 10 15

Lys Glu Asn Tyr Ile Ile Asp Lys Leu Ile Asn Leu Phe Tyr Val Phe
 20 25 30
 Ile Tyr Tyr Phe Ala Leu Ser Ser Arg Leu Glu Cys Thr Gly Ala Ile
 35 40 45
 Ser Thr His Cys Asn Leu Leu Leu Pro Gly Ser Ser Asn Ser Thr Ser
 50 55 60
 Ala Ser Leu Val Thr Gly Thr Thr Gly Val His His His Ala Gln Leu
 65 70 75 80
 Ile Phe Val Phe Ile Val Glu Thr Gly Phe His His Val Gly Gln Pro
 85 90 95
 Gly Leu Lys Leu Leu Thr Ser Gly Asp Met Pro Thr Ser Ala Ser Gln
 100 105 110
 Met Leu Gly Leu Gln Val
 115

<210> 2936

<211> 708

<212> PRT

<213> Homo sapiens

<400> 2936

Met Arg Glu Arg Ile Trp Ala Pro Pro Leu Leu Leu Leu Pro Leu
 1 5 10 15
 Leu Leu Pro Pro Pro Leu Trp Gly Gly Pro Pro Asp Ser Pro Arg Arg
 20 25 30
 Glu Leu Glu Leu Glu Pro Gly Pro Leu Gln Pro Phe Asp Leu Leu Tyr
 35 40 45
 Ala Ser Gly Ala Ala Ala Tyr Tyr Ser Gly Asp Tyr Glu Arg Ala Val
 50 55 60
 Arg Asp Leu Glu Ala Ala Leu Arg Ser His Arg Arg Leu Arg Glu Ile
 65 70 75 80
 Arg Thr Arg Cys Ala Arg His Cys Ala Ala Arg His Pro Leu Pro Pro
 85 90 95
 Pro Pro Pro Gly Glu Gly Pro Gly Ala Glu Leu Pro Leu Phe Arg Ser
 100 105 110

Leu Leu Gly Arg Ala Arg Cys Tyr Arg Ser Cys Glu Thr Gln Arg Leu
 115 120 125
 Gly Gly Pro Ala Ser Arg His Arg Val Ser Glu Asp Val Arg Ser Asp
 130 135 140
 Phe Gln Arg Arg Val Pro Tyr Asn Tyr Leu Gln Arg Ala Tyr Ile Lys
 145 150 155 160
 Leu Asn Gln Leu Glu Lys Ala Val Glu Ala Ala His Thr Phe Phe Val
 165 170 175
 Ala Asn Pro Glu His Met Glu Met Gln Gln Asn Ile Glu Asn Tyr Arg
 180 185 190
 Ala Thr Ala Gly Val Glu Ala Leu Gln Leu Val Asp Arg Glu Ala Lys
 195 200 205
 Pro His Met Glu Ser Tyr Asn Ala Gly Val Lys His Tyr Glu Ala Asp
 210 215 220
 Asp Phe Glu Met Ala Ile Arg His Phe Glu Gln Ala Leu Arg Glu Tyr
 225 230 235 240
 Phe Val Glu Asp Thr Glu Cys Arg Thr Leu Cys Glu Gly Pro Gln Arg
 245 250 255
 Phe Glu Glu Tyr Glu Tyr Leu Gly Tyr Lys Ala Gly Leu Tyr Glu Ala
 260 265 270
 Ile Ala Asp His Tyr Met Gln Val Leu Val Cys Gln His Glu Cys Val
 275 280 285
 Arg Glu Leu Ala Thr Arg Pro Gly Arg Leu Ser Pro Ile Glu Asn Phe
 290 295 300
 Leu Pro Leu His Tyr Asp Tyr Leu Gln Phe Ala Tyr Tyr Arg Val Gly
 305 310 315 320
 Glu Tyr Val Lys Ala Leu Glu Cys Ala Lys Ala Tyr Leu Leu Cys His
 325 330 335
 Pro Asp Asp Glu Asp Val Leu Asp Asn Val Asp Tyr Tyr Glu Ser Leu
 340 345 350
 Leu Asp Asp Ser Ile Asp Pro Ala Ser Ile Glu Ala Arg Glu Asp Leu
 355 360 365
 Thr Met Phe Val Lys Arg His Lys Leu Glu Ser Glu Leu Ile Lys Ser
 370 375 380
 Ala Ala Glu Gly Leu Gly Phe Ser Tyr Thr Glu Pro Asn Tyr Trp Ile
 385 390 395 400

Arg Tyr Gly Gly Arg Gln Asp Glu Asn Arg Val Pro Ser Gly Val Asn
 405 410 415
 Val Glu Gly Ala Glu Val His Gly Phe Ser Met Gly Lys Lys Leu Ser
 420 425 430
 Pro Lys Ile Asp Arg Asp Leu Arg Glu Gly Gly Pro Leu Leu Tyr Glu
 435 440 445
 Asn Ile Thr Phe Val Tyr Asn Ser Glu Gln Leu Asn Gly Thr Gln Arg
 450 455 460
 Val Leu Leu Asp Asn Val Leu Ser Glu Glu Gln Cys Arg Glu Leu His
 465 470 475 480
 Ser Val Ala Ser Gly Ile Met Leu Val Gly Asp Gly Tyr Arg Gly Lys
 485 490 495
 Thr Ser Pro His Thr Pro Asn Glu Lys Phe Glu Gly Ala Thr Val Leu
 500 505 510
 Lys Ala Leu Lys Ser Gly Tyr Glu Gly Arg Val Pro Leu Lys Ser Ala
 515 520 525
 Arg Leu Phe Tyr Asp Ile Ser Glu Lys Ala Arg Arg Ile Val Glu Ser
 530 535 540
 Tyr Phe Met Leu Asn Ser Thr Leu Tyr Phe Ser Tyr Thr His Met Val
 545 550 555 560
 Cys Arg Thr Ala Leu Ser Gly Gln Gln Asp Arg Arg Asn Asp Leu Ser
 565 570 575
 His Pro Ile His Ala Asp Asn Cys Leu Leu Asp Pro Glu Ala Asn Glu
 580 585 590
 Cys Trp Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Leu
 595 600 605
 Leu Tyr Met Asn Asp Asp Phe Glu Gly Gly Glu Phe Ile Phe Thr Glu
 610 615 620
 Met Asp Ala Lys Thr Val Thr Ala Ser Ile Lys Pro Lys Cys Gly Arg
 625 630 635 640
 Met Ile Ser Phe Ser Ser Gly Gly Glu Asn Pro His Gly Val Lys Ala
 645 650 655
 Val Thr Lys Gly Lys Arg Cys Ala Val Ala Leu Trp Phe Thr Leu Asp
 660 665 670
 Pro Leu Tyr Arg Glu Leu Glu Arg Ile Gln Ala Asp Glu Val Ile Ala
 675 680 685

Ile Leu Asp Gln Glu Gln Gln Gly Lys His Glu Leu Asn Ile Asn Pro
 690 695 700

Lys Asp Glu Leu

705

<210> 2937

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2937

Met Ser Leu Arg Arg Leu Cys Gly Pro Gln Gln Ala Gly Gly Leu Thr
 1 5 10 15

Trp Glu Gln Arg Leu Gln Gly Trp His Leu His Thr Ile Pro Leu His
 20 25 30

Arg Ala Phe Leu Arg Phe Leu Ser Val Val Gly Ile Leu Pro Pro Gln
 35 40 45

Leu Ala Ala Pro Cys Leu Leu Trp Leu His Thr Gly Ser Leu Gly Asn
 50 55 60

Phe Lys Lys Ala Leu Met Pro Gly Leu His Phe Gly Gln Tyr Asn Gln
 65 70 75 80

Ser Leu Arg Ala Ala Leu Gly Gly Gly Val Cys Gly Val Ser Trp Thr
 85 90 95

His Thr Leu Pro Ala Ser Gly Ser Ser Asp Arg Val Leu Arg Thr Ala
 100 105 110

Glu Tyr Leu Glu Val Ser Ser Ser
 115 120

<210> 2938

<211> 178

<212> PRT

<213> Homo sapiens

<400> 2938

Met Gln Leu Arg Ala Arg Gln Cys Thr Pro Asn Ala Gly Gly Val Thr
 1 5 10 15
 Pro Ala Gln Phe His Leu Leu Leu His Asp Val Leu Leu Thr Gln Ser
 20 25 30
 Pro Thr Thr Gly Leu Trp Ala Ala Pro Phe Leu Thr Ser Thr Val Leu
 35 40 45
 Met Asp Thr Asp Ala Ser Pro Ser Gly Glu Asp Thr Val Arg Ala Ser
 50 55 60
 Leu Ser His Ala Phe Leu Ser Leu Thr Ala Arg Ser Gln Pro Pro Thr
 65 70 75 80
 Lys Pro Ser Leu Ser Ala Ser Gln Ala Ala Met Cys Gln Val Ser Leu
 85 90 95
 Pro Arg Leu Ser Trp Lys Ala Leu Leu Cys Thr Asn Leu Pro Ala Leu
 100 105 110
 Gly Ile Ser Gln Pro Ser Ser Phe Tyr Gln Ser Asp Gly Cys Lys Gly
 115 120 125
 Asn Ser Cys Val Leu Leu Cys Ile Ser Leu Ile Pro Val Gly Leu Ser
 130 135 140
 Ser Ser Ser Leu Asn Cys Val Ser Phe Ala Leu Ser Leu Leu Gly Ile
 145 150 155 160
 Val Cys Trp Gly Trp Leu Ser Val Asn Leu Asn Arg Ser Lys Leu Gly
 165 170 175
 Tyr Phe

<210> 2939

<211> 1330

<212> PRT

<213> Homo sapiens

<400> 2939

Met Pro Leu Ser Pro Pro Ala Gln Gly Asp Pro Gly Glu Pro Ser Pro
 1 5 10 15
 Cys Arg Pro Pro Lys Lys His Thr Thr Phe His Leu Trp Arg Ser Lys
 20 25 30

Lys Lys Gln Gln Pro Ala Pro Pro Asp Cys Gly Val Phe Val Pro His
 35 40 45
 Pro Leu Pro Ala Pro Ala Gly Glu Ala Arg Ala Leu Asp Val Val Asp
 50 55 60
 Gly Lys Tyr Val Val Arg Asp Ser Gln Glu Phe Pro Leu His Cys Gly
 65 70 75 80
 Glu Ser Gln Phe Phe His Thr Thr Ser Glu Ala Leu Gly Ser Leu Leu
 85 90 95
 Leu Glu Ser Gly Ile Phe Lys Lys Ser Arg Ala Gln Pro Pro Glu Asp
 100 105 110
 Asn Arg Arg Lys Pro Val Leu Gly Lys Leu Gly Thr Leu Phe Thr Ala
 115 120 125
 Gly Arg Arg Arg Asn Ser Arg Asn Gly Leu Glu Ser Pro Thr Arg Ser
 130 135 140
 Asn Ala Lys Pro Leu Ser Pro Lys Asp Val Val Ala Ser Pro Lys Leu
 145 150 155 160
 Pro Glu Arg Glu Ser Glu Arg Ser Arg Ser Gln Ser Ser Gln Leu Lys
 165 170 175
 Gln Thr Asp Thr Ser Glu Glu Gly Ser Pro Arg Glu Asn Pro Arg Glu
 180 185 190
 Ala Glu Gly Glu Leu Pro Glu Ser Gly Gly Pro Ala Ala Pro Pro Asp
 195 200 205
 Ala Glu Leu Ser Pro Arg Trp Ser Ser Ser Ala Ala Ala Val Ala Val
 210 215 220
 Gln Gln Cys His Glu Asn Asp Ser Pro Gln Leu Glu Pro Leu Glu Ala
 225 230 235 240
 Glu Gly Glu Pro Phe Pro Asp Ala Thr Thr Thr Ala Lys Gln Leu His
 245 250 255
 Ser Ser Pro Gly Asn Ser Ser Arg Gln Glu Asn Ala Glu Thr Pro Ala
 260 265 270
 Arg Ser Pro Gly Glu Asp Ala Ser Pro Gly Ala Gly His Glu Gln Glu
 275 280 285
 Ala Phe Leu Gly Val Arg Gly Ala Pro Gly Ser Pro Thr Gln Glu Arg
 290 295 300
 Pro Ala Gly Gly Leu Gly Glu Ala Pro Asn Gly Ala Pro Ser Val Cys
 305 310 315 320

Ala Glu Glu Gly Ser Leu Gly Pro Arg Asn Ala Arg Ser Gln Pro Arg
 325 330 335
 Lys Gly Ala Ser Asp Leu Pro Gly Glu Pro Pro Ala Glu Gly Ala Ala
 340 345 350
 His Thr Ala Ser Ser Ala Gln Ala Asp Cys Thr Ala Arg Pro Lys Gly
 355 360 365
 His Ala His Pro Ala Lys Val Leu Thr Leu Asp Ile Tyr Leu Ser Lys
 370 375 380
 Thr Glu Gly Ala Gln Val Asp Glu Pro Val Val Ile Thr Pro Arg Ala
 385 390 395 400
 Glu Asp Cys Gly Asp Trp Asp Asp Met Glu Lys Arg Ser Ser Gly Arg
 405 410 415
 Arg Ser Gly Arg Arg Arg Gly Ser Gln Lys Ser Thr Asp Ser Pro Gly
 420 425 430
 Ala Asp Ala Glu Leu Pro Glu Ser Ala Ala Arg Asp Asp Ala Val Phe
 435 440 445
 Asp Asp Glu Val Ala Pro Asn Ala Ala Ser Asp Asn Ala Ser Ala Glu
 450 455 460
 Lys Lys Val Lys Ser Pro Arg Ala Ala Leu Asp Gly Gly Val Ala Ser
 465 470 475 480
 Ala Ala Ser Pro Glu Ser Lys Pro Ser Pro Gly Thr Lys Gly Gln Leu
 485 490 495
 Arg Gly Glu Ser Asp Arg Ser Lys Gln Pro Pro Pro Ala Ser Ser Pro
 500 505 510
 Thr Lys Arg Lys Gly Arg Ser Arg Ala Leu Glu Ala Val Pro Ala Pro
 515 520 525
 Pro Ala Ser Gly Pro Arg Ala Pro Ala Lys Glu Ser Pro Pro Lys Arg
 530 535 540
 Val Pro Asp Pro Ser Pro Val Thr Lys Gly Thr Ala Ala Glu Ser Gly
 545 550 555 560
 Glu Glu Ala Ala Arg Ala Ile Pro Arg Glu Leu Pro Val Lys Ser Ser
 565 570 575
 Ser Leu Leu Pro Glu Ile Lys Pro Glu His Lys Arg Gly Pro Leu Pro
 580 585 590
 Asn His Phe Asn Gly Arg Ala Glu Gly Gly Arg Ser Arg Glu Leu Gly
 595 600 605

Arg Ala Ala Gly Ala Pro Gly Ala Ser Asp Ala Asp Gly Leu Lys Pro
 610 615 620
 Arg Asn His Phe Gly Val Gly Arg Ser Thr Val Thr Thr Lys Val Thr
 625 630 635 640
 Leu Pro Ala Lys Pro Lys His Val Glu Leu Asn Leu Lys Thr Pro Lys
 645 650 655
 Asn Leu Asp Ser Leu Gly Asn Glu His Asn Pro Phe Ser Gln Pro Val
 660 665 670
 His Lys Gly Asn Thr Ala Thr Lys Ile Ser Leu Phe Glu Asn Lys Arg
 675 680 685
 Thr Asn Ser Ser Pro Arg His Thr Asp Ile Arg Gly Gln Arg Asn Thr
 690 695 700
 Pro Ala Ser Ser Lys Thr Phe Val Gly Arg Ala Lys Leu Asn Leu Ala
 705 710 715 720
 Lys Lys Ala Lys Glu Met Glu Gln Pro Glu Lys Lys Val Met Pro Asn
 725 730 735
 Ser Pro Gln Asn Gly Val Leu Val Lys Glu Thr Ala Ile Glu Thr Lys
 740 745 750
 Val Thr Val Ser Glu Glu Glu Ile Leu Pro Ala Thr Arg Gly Met Asn
 755 760 765
 Gly Asp Ser Ser Glu Asn Gln Ala Leu Gly Pro Gln Pro Asn Gln Asp
 770 775 780
 Asp Lys Ala Asp Val Gln Thr Asp Ala Gly Cys Leu Ser Glu Pro Val
 785 790 795 800
 Ala Ser Ala Leu Ile Pro Val Lys Asp His Lys Leu Leu Glu Lys Glu
 805 810 815
 Asp Ser Glu Ala Ala Asp Ser Lys Ser Leu Val Leu Glu Asn Val Thr
 820 825 830
 Asp Thr Ala Gln Asp Ile Pro Thr Thr Val Asp Thr Lys Asp Leu Pro
 835 840 845
 Pro Thr Ala Met Pro Lys Pro Gln His Thr Phe Ser Asp Ser Gln Ser
 850 855 860
 Pro Ala Glu Ser Ser Pro Gly Pro Ser Leu Ser Leu Ser Ala Pro Ala
 865 870 875 880
 Pro Gly Asp Val Pro Lys Asp Thr Cys Val Gln Ser Pro Ile Ser Ser
 885 890 895

Phe Pro Cys Thr Asp Leu Lys Val Ser Glu Asn His Lys Gly Cys Val
 900 905 910
 Leu Pro Val Ser Arg Gln Asn Asn Glu Lys Met Pro Leu Leu Glu Leu
 915 920 925
 Gly Gly Glu Thr Thr Pro Pro Leu Ser Thr Glu Arg Ser Pro Glu Ala
 930 935 940
 Val Gly Ser Glu Cys Pro Ser Arg Val Leu Val Gln Val Arg Ser Phe
 945 950 955 960
 Val Leu Pro Val Glu Ser Thr Gln Asp Val Ser Ser Gln Val Ile Pro
 965 970 975
 Glu Ser Ser Glu Val Arg Glu Val Gln Leu Pro Thr Cys His Ser Asn
 980 985 990
 Glu Pro Glu Val Val Ser Val Ala Ser Cys Ala Pro Pro Gln Glu Glu
 995 1000 1005
 Val Leu Gly Asn Glu His Ser His Cys Thr Ala Glu Leu Ala Ala Lys
 1010 1015 1020
 Ser Gly Pro Gln Val Ile Pro Pro Ala Ser Glu Lys Thr Leu Pro Ile
 1025 1030 1035 1040
 Gln Ala Gln Ser Gln Gly Ser Arg Thr Pro Leu Met Ala Glu Ser Ser
 1045 1050 1055
 Pro Thr Asn Ser Pro Ser Ser Gly Asn His Leu Ala Thr Pro Gln Arg
 1060 1065 1070
 Pro Asp Gln Thr Val Thr Asn Gly Gln Asp Ser Pro Ala Ser Leu Leu
 1075 1080 1085
 Asn Ile Ser Ala Gly Ser Asp Asp Ser Val Phe Asp Ser Ser Ser Asp
 1090 1095 1100
 Met Glu Lys Phe Thr Glu Ile Ile Lys Gln Met Asp Ser Ala Val Cys
 1105 1110 1115 1120
 Met Pro Met Lys Arg Lys Lys Ala Arg Met Pro Asn Ser Pro Ala Pro
 1125 1130 1135
 His Phe Ala Met Pro Pro Ile His Glu Asp His Leu Glu Lys Val Phe
 1140 1145 1150
 Asp Pro Lys Val Phe Thr Phe Gly Leu Gly Lys Lys Lys Glu Ser Gln
 1155 1160 1165
 Pro Glu Met Ser Pro Ala Leu His Leu Met Gln Asn Leu Asp Thr Lys
 1170 1175 1180

Ser Lys Leu Arg Pro Lys Arg Ala Ser Ala Glu Gln Ser Val Leu Phe
 1185 1190 1195 1200
 Lys Ser Leu His Thr Asn Thr Asn Gly Asn Ser Glu Pro Leu Val Met
 1205 1210 1215
 Pro Glu Ile Asn Asp Lys Glu Asn Arg Asp Val Thr Asn Gly Gly Ile
 1220 1225 1230
 Lys Arg Ser Arg Leu Glu Lys Ser Ala Leu Phe Ser Ser Leu Leu Ser
 1235 1240 1245
 Ser Leu Pro Gln Asp Lys Ile Phe Ser Pro Ser Val Thr Ser Val Asn
 1250 1255 1260
 Thr Met Thr Thr Ala Phe Ser Thr Ser Gln Asn Gly Ser Leu Ser Gln
 1265 1270 1275 1280
 Ser Ser Val Ser Gln Pro Thr Thr Glu Gly Ala Pro Pro Cys Gly Leu
 1285 1290 1295
 Asn Lys Glu Gln Ser Asn Leu Leu Pro Asp Asn Ser Leu Lys Val Phe
 1300 1305 1310
 Asn Phe Asn Ser Ser Ser Thr Ser His Ser Ser Leu Lys Ser Pro Ser
 1315 1320 1325
 His Met
 1330

<210> 2940

<211> 959

<212> PRT

<213> Homo sapiens

<400> 2940

Met Gly Gly Gly Ser Gly Glu Glu Gln Leu Tyr Ala Asp Phe Pro Glu
 1 5 10 15
 Leu Asp Leu Ser Gln Leu Asp Ala Ser Asp Phe Asp Ser Ala Thr Cys
 20 25 30
 Phe Gly Glu Leu Gln Trp Cys Pro Glu Asn Ser Glu Thr Glu Pro Asn
 35 40 45
 Gln Tyr Ser Pro Asp Asp Ser Glu Leu Phe Gln Ile Asp Ser Glu Asn
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Leu | Leu | Ala | Glu | Leu | Thr | Lys | Thr | Leu | Asp | Asp | Ile | Pro | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Asp | Val | Gly | Leu | Ala | Ala | Phe | Pro | Ala | Leu | Asp | Gly | Gly | Asp | Ala |
| | | | | 85 | | | | | 90 | | | | | | 95 |
| Leu | Ser | Cys | Thr | Ser | Ala | Ser | Pro | Ala | Pro | Ser | Ser | Ala | Pro | Pro | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Ala | Pro | Glu | Lys | Pro | Ser | Ala | Pro | Ala | Pro | Glu | Val | Asp | Glu | Leu |
| | | | 115 | | | | 120 | | | | | | 125 | | |
| Ser | Leu | Ala | Asp | Ser | Thr | Gln | Asp | Lys | Lys | Ala | Pro | Met | Met | Gln | Ser |
| | | | 130 | | | | 135 | | | | | 140 | | | |
| Gln | Ser | Arg | Ser | Cys | Thr | Glu | Leu | His | Lys | His | Leu | Thr | Ser | Ala | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Cys | Leu | Gln | Asp | Arg | Gly | Leu | Gln | Pro | Pro | Cys | Leu | Gln | Ser | Pro |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Arg | Leu | Pro | Ala | Lys | Glu | Asp | Lys | Glu | Pro | Gly | Glu | Asp | Cys | Pro | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Gln | Pro | Ala | Pro | Ala | Ser | Pro | Arg | Asp | Ser | Leu | Ala | Leu | Gly | Arg |
| | | | 195 | | | | 200 | | | | | | 205 | | |
| Ala | Asp | Pro | Gly | Ala | Pro | Val | Ser | Gln | Glu | Asp | Met | Gln | Ala | Met | Val |
| | | | 210 | | | | 215 | | | | | 220 | | | |
| Gln | Leu | Ile | Arg | Tyr | Met | His | Thr | Tyr | Cys | Leu | Pro | Gln | Arg | Lys | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Pro | Gln | Thr | Pro | Glu | Pro | Leu | Pro | Lys | Ala | Cys | Ser | Asn | Pro | Ser |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Gln | Gln | Val | Arg | Ser | Arg | Pro | Trp | Ser | Arg | His | His | Ser | Lys | Ala | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Trp | Ala | Glu | Phe | Ser | Ile | Leu | Arg | Glu | Leu | Leu | Ala | Gln | Asp | Val | Leu |
| | | | 275 | | | | 280 | | | | | | 285 | | |
| Cys | Asp | Val | Ser | Lys | Pro | Tyr | Arg | Leu | Ala | Thr | Pro | Val | Tyr | Ala | Ser |
| | | | 290 | | | | 295 | | | | | 300 | | | |
| Leu | Thr | Pro | Arg | Ser | Arg | Pro | Arg | Pro | Pro | Lys | Asp | Ser | Gln | Ala | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Gly | Arg | Pro | Ser | Ser | Val | Glu | Glu | Val | Arg | Ile | Ala | Ala | Ser | Pro |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Lys | Ser | Thr | Gly | Pro | Arg | Pro | Ser | Leu | Arg | Pro | Leu | Arg | Leu | Glu | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |

Lys Arg Glu Val Arg Arg Pro Ala Arg Leu Gln Gln Gln Glu Glu Glu
 355 360 365
 Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Lys Glu Glu Glu
 370 375 380
 Glu Glu Trp Gly Arg Lys Arg Pro Gly Arg Gly Leu Pro Trp Thr Lys
 385 390 395 400
 Leu Gly Arg Lys Leu Glu Ser Ser Val Cys Pro Val Arg Arg Ser Arg
 405 410 415

 Arg Leu Asn Pro Glu Leu Gly Pro Trp Leu Thr Phe Ala Asp Glu Pro
 420 425 430
 Leu Val Pro Ser Glu Pro Gln Gly Ala Leu Pro Ser Leu Cys Leu Ala
 435 440 445
 Pro Lys Ala Tyr Asp Val Glu Arg Glu Leu Gly Ser Pro Thr Asp Glu
 450 455 460
 Asp Ser Gly Gln Asp Gln Gln Leu Leu Arg Gly Pro Gln Ile Pro Ala
 465 470 475 480
 Leu Glu Ser Pro Cys Glu Ser Gly Cys Gly Asp Met Asp Glu Asp Pro
 485 490 495
 Ser Cys Pro Gln Leu Pro Pro Arg Asp Ser Pro Arg Cys Leu Met Leu
 500 505 510
 Ala Leu Ser Gln Ser Asp Pro Thr Phe Gly Lys Lys Ser Phe Glu Gln
 515 520 525
 Thr Leu Thr Val Glu Leu Cys Gly Thr Ala Gly Leu Thr Pro Pro Thr
 530 535 540
 Thr Pro Pro Tyr Lys Pro Thr Glu Glu Asp Pro Phe Lys Pro Asp Ile
 545 550 555 560
 Lys His Ser Leu Gly Lys Glu Ile Ala Leu Ser Leu Pro Ser Pro Glu
 565 570 575
 Gly Leu Ser Leu Lys Ala Thr Pro Gly Ala Ala His Lys Leu Pro Lys
 580 585 590
 Lys His Pro Glu Arg Ser Glu Leu Leu Ser His Leu Arg His Ala Thr
 595 600 605
 Ala Gln Pro Ala Ser Gln Ala Gly Gln Lys Arg Pro Phe Ser Cys Ser
 610 615 620
 Phe Gly Asp His Asp Tyr Cys Gln Val Leu Arg Pro Glu Gly Val Leu

| | | | |
|---|-----|-----|-----|
| 625 | 630 | 635 | 640 |
| Gln Arg Lys Val Leu Arg Ser Trp Glu Pro Ser Gly Val His Leu Glu | | | |
| 645 | 650 | 655 | |
| Asp Trp Pro Gln Gln Gly Ala Pro Trp Ala Glu Ala Gln Ala Pro Gly | | | |
| 660 | 665 | 670 | |
| Arg Glu Glu Asp Arg Ser Cys Asp Ala Gly Ala Pro Pro Lys Asp Ser | | | |
| 675 | 680 | 685 | |
| Thr Leu Leu Arg Asp His Glu Ile Arg Ala Ser Leu Thr Lys His Phe | | | |
| 690 | 695 | 700 | |
| Gly Leu Leu Glu Thr Ala Leu Glu Glu Glu Asp Leu Ala Ser Cys Lys | | | |
| 705 | 710 | 715 | 720 |
| Ser Pro Glu Tyr Asp Thr Val Phe Glu Asp Ser Ser Ser Ser Ser Gly | | | |
| 725 | 730 | 735 | |
| Glu Ser Ser Phe Leu Pro Glu Glu Glu Glu Glu Glu Gly Glu Glu Glu | | | |
| 740 | 745 | 750 | |
| Glu Glu Asp Asp Glu Glu Glu Asp Ser Gly Val Ser Pro Thr Cys Ser | | | |
| 755 | 760 | 765 | |
| Asp His Cys Pro Tyr Gln Ser Pro Pro Ser Lys Ala Asn Arg Gln Leu | | | |
| 770 | 775 | 780 | |
| Cys Ser Arg Ser Arg Ser Ser Ser Gly Ser Ser Pro Cys His Ser Trp | | | |
| 785 | 790 | 795 | 800 |
| Ser Pro Ala Thr Arg Arg Asn Phe Arg Cys Glu Ser Arg Gly Pro Cys | | | |
| 805 | 810 | 815 | |
| Ser Asp Arg Thr Pro Ser Ile Arg His Ala Arg Lys Arg Arg Glu Lys | | | |
| 820 | 825 | 830 | |
| Ala Ile Gly Glu Gly Arg Val Val Tyr Ile Gln Asn Leu Ser Ser Asp | | | |
| 835 | 840 | 845 | |
| Met Ser Ser Arg Glu Leu Lys Arg Arg Phe Glu Val Phe Gly Glu Ile | | | |
| 850 | 855 | 860 | |
| Glu Glu Cys Glu Val Leu Thr Arg Asn Arg Arg Gly Glu Lys Tyr Gly | | | |
| 865 | 870 | 875 | 880 |
| Phe Ile Thr Tyr Arg Cys Ser Glu His Ala Ala Leu Ser Leu Thr Lys | | | |
| 885 | 890 | 895 | |
| Gly Ala Ala Leu Arg Lys Arg Asn Glu Pro Ser Phe Gln Leu Ser Tyr | | | |
| 900 | 905 | 910 | |
| Gly Gly Leu Arg His Phe Cys Trp Pro Arg Tyr Thr Asp Tyr Asp Ser | | | |

915 920 925
 Asn Ser Glu Glu Ala Leu Pro Ala Ser Gly Lys Ser Lys Tyr Glu Ala
 930 935 940
 Met Asp Phe Asp Ser Leu Leu Lys Glu Ala Gln Gln Ser Leu His
 945 950 955

<210> 2941

<211> 393

<212> PRT

<213> Homo sapiens

<400> 2941

Met Ala Glu Leu Arg Gln Val Pro Gly Gly Arg Glu Thr Pro Gln Gly
 1 5 10 15
 Glu Leu Arg Pro Glu Val Val Glu Asp Glu Val Pro Arg Ser Pro Val
 20 25 30
 Ala Glu Glu Pro Gly Gly Gly Gly Ser Ser Ser Ser Glu Ala Lys Leu
 35 40 45
 Ser Pro Arg Glu Glu Glu Glu Leu Asp Pro Arg Ile Gln Glu Glu Leu
 50 55 60
 Glu His Leu Asn Gln Ala Ser Glu Glu Ile Asn Gln Val Glu Leu Gln
 65 70 75 80
 Leu Asp Glu Ala Arg Thr Thr Tyr Arg Arg Ile Leu Gln Glu Ser Ala
 85 90 95
 Arg Lys Leu Asn Thr Gln Gly Ser His Leu Gly Ser Cys Ile Glu Lys
 100 105 110
 Ala Arg Pro Tyr Tyr Glu Ala Arg Arg Leu Ala Lys Glu Ala Gln Gln
 115 120 125
 Glu Thr Gln Lys Ala Ala Leu Arg Tyr Glu Arg Ala Val Ser Met His
 130 135 140
 Asn Ala Ala Arg Glu Met Val Phe Val Ala Glu Gln Gly Val Met Ala
 145 150 155 160
 Asp Lys Asn Arg Leu Asp Pro Thr Trp Gln Glu Met Leu Asn His Ala
 165 170 175
 Thr Cys Lys Val Asn Glu Ala Glu Glu Glu Arg Leu Arg Gly Glu Arg

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Glu His Gln Arg Val Thr Arg Leu Cys Gln Gln Ala Glu Ala Arg Val | | |
| 195 | 200 | 205 |
| Gln Ala Leu Gln Lys Thr Leu Arg Arg Ala Ile Gly Lys Ser Arg Pro | | |
| 210 | 215 | 220 |
| Tyr Phe Glu Leu Lys Ala Gln Phe Ser Gln Ile Leu Glu Glu His Lys | | |
| 225 | 230 | 235 |
| Ala Lys Val Thr Glu Leu Glu Gln Gln Val Ala Gln Ala Lys Thr Arg | | |
| 245 | 250 | 255 |
| Tyr Ser Val Ala Leu Arg Asn Leu Glu Gln Ile Ser Glu Gln Ile His | | |
| 260 | 265 | 270 |
| Ala Arg Arg Arg Gly Gly Leu Pro Pro His Pro Leu Gly Pro Arg Arg | | |
| 275 | 280 | 285 |
| Ser Ser Pro Val Gly Ala Glu Ala Gly Pro Glu Asp Met Glu Asp Gly | | |
| 290 | 295 | 300 |
| Asp Ser Gly Ile Glu Gly Ala Glu Gly Ala Gly Leu Glu Glu Gly Ser | | |
| 305 | 310 | 315 |
| Ser Leu Gly Pro Gly Pro Ala Pro Asp Thr Asp Thr Leu Ser Leu Leu | | |
| 325 | 330 | 335 |
| Ser Leu Arg Thr Val Ala Ser Asp Leu Gln Lys Cys Asp Ser Val Glu | | |
| 340 | 345 | 350 |
| His Leu Arg Gly Leu Ser Asp His Val Ser Leu Asp Gly Gln Glu Leu | | |
| 355 | 360 | 365 |
| Gly Thr Arg Ser Gly Gly Arg Arg Gly Ser Asp Gly Gly Ala Arg Gly | | |
| 370 | 375 | 380 |
| Gly Arg His Gln Arg Ser Val Ser Leu | | |
| 385 | 390 | |

<210> 2942

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2942

Met Gly Ser Trp Ala Phe His Ile Thr Pro Phe Leu Leu Arg Leu Ser
 1 5 10 15
 Glu Ser His Arg Pro Phe Pro Trp Ile Ser Phe Gly Ala Lys Lys Gln
 20 25 30
 Arg Ser Phe Val Phe Val Phe Ser Leu Trp Asn Asp Phe Leu Leu Ser
 35 40 45
 Val Leu Phe Lys Phe Arg Arg Ser Tyr Ser Gly Ile Cys Thr Phe Pro
 50 55 60
 Cys Tyr Ser Ser Cys Leu Met Asn Phe Ile His Leu His Phe Ser Met
 65 70 75 80
 Trp Leu Ala Trp Thr Gly Gly Arg Thr Leu Trp Pro His Gly Thr Leu
 85 90 95
 Arg Thr Gln Gly Arg Ala Ser Ala Gly Lys Glu Leu Pro Gly Leu Thr
 100 105 110
 Glu Leu His Leu Thr Val Leu Phe Leu Ala Ile Phe Cys Cys Leu Phe
 115 120 125
 Leu Cys Val Asp Phe Val Pro Gly Lys Ile Phe His Ser Glu
 130 135 140

<210> 2943

<211> 1309

<212> PRT

<213> Homo sapiens

<400> 2943

Met Arg Glu Pro Leu Pro Gly Ser Ala Ser Trp Gly Thr Pro Gly Pro
 1 5 10 15
 Pro Ser Ala Gly Thr Met Ser Gln Leu Gln Leu Trp Leu Gln Phe Glu
 20 25 30
 Ala Leu Asn Lys Asp Ser Ser Tyr Phe Glu Asp Phe Ser Asn Ile Ser
 35 40 45
 Ile Phe Ser Ser Ser Val Asp Ser Leu Ser Asp Ile Val Asp Thr Pro
 50 55 60
 Asp Phe Leu Pro Ala Asp Ser Leu Asn Gln Val Ser Thr Ile Trp Asp
 65 70 75 80

Asp Asn Pro Ala Pro Ser Thr His Asp Lys Leu Phe Gln Leu Ser Arg
 85 90 95
 Pro Phe Ala Gly Phe Glu Asp Phe Leu Pro Ser His Ser Thr Pro Leu
 100 105 110
 Leu Val Ser Tyr Gln Glu Gln Ser Val Gln Ser Gln Pro Glu Glu Glu
 115 120 125
 Asp Glu Ala Glu Glu Glu Glu Ala Glu Glu Leu Gly His Thr Glu Thr
 130 135 140
 Tyr Ala Asp Tyr Val Pro Ser Lys Ser Lys Ile Gly Lys Gln His Pro
 145 150 155 160
 Asp Arg Val Val Glu Thr Ser Thr Leu Ser Ser Val Pro Pro Pro Asp
 165 170 175
 Ile Thr Tyr Thr Leu Ala Leu Pro Ser Asp Ser Gly Ala Leu Ser Ala
 180 185 190
 Leu Gln Leu Glu Ala Ile Thr Tyr Ala Cys Gln Gln His Glu Val Leu
 195 200 205
 Leu Pro Ser Gly Gln Arg Ala Gly Phe Leu Ile Gly Asp Gly Ala Gly
 210 215 220
 Val Gly Lys Gly Arg Thr Val Ala Gly Val Ile Leu Glu Asn His Leu
 225 230 235 240
 Arg Gly Arg Lys Lys Ala Leu Trp Phe Ser Val Ser Asn Asp Leu Lys
 245 250 255
 Tyr Asp Ala Glu Arg Asp Leu Arg Asp Ile Glu Ala Thr Gly Ile Ala
 260 265 270
 Val His Ala Leu Ser Lys Ile Lys Tyr Gly Asp Thr Thr Thr Ser Glu
 275 280 285
 Gly Val Leu Phe Ala Thr Tyr Ser Ala Leu Ile Gly Glu Ser Gln Ala
 290 295 300
 Gly Gly Gln His Arg Thr Arg Leu Arg Gln Ile Leu Asp Trp Cys Gly
 305 310 315 320
 Glu Ala Phe Glu Gly Val Ile Val Phe Asp Glu Cys His Lys Ala Lys
 325 330 335
 Asn Ala Gly Ser Thr Lys Met Gly Lys Ala Val Leu Asp Leu Gln Asn
 340 345 350
 Lys Leu Pro Leu Ala Arg Val Val Tyr Ala Ser Ala Thr Gly Ala Ser
 355 360 365

Glu Pro Arg Asn Met Ile Tyr Met Ser Arg Leu Gly Ile Trp Gly Glu

| | | | |
|---|-----|-----|-----|
| 370 | 375 | 380 | |
| Gly Thr Pro Phe Arg Asn Phe Glu Glu Phe Leu His Ala Ile Glu Lys | | | |
| 385 | 390 | 395 | 400 |
| Arg Gly Val Gly Ala Met Glu Ile Val Ala Met Asp Met Lys Val Ser | | | |
| | 405 | 410 | 415 |
| Gly Met Tyr Ile Ala Arg Gln Leu Ser Phe Ser Gly Val Thr Phe Arg | | | |
| | 420 | 425 | 430 |
| Ile Glu Glu Ile Pro Leu Ala Pro Ala Phe Glu Cys Val Tyr Asn Arg | | | |
| 435 | 440 | 445 | |
| Ala Ala Leu Leu Trp Ala Glu Ala Leu Asn Val Phe Gln Gln Ala Ala | | | |
| 450 | 455 | 460 | |
| Asp Trp Ile Gly Leu Glu Ser Arg Lys Ser Leu Trp Gly Gln Phe Trp | | | |
| 465 | 470 | 475 | 480 |
| Ser Ala His Gln Arg Phe Phe Lys Tyr Leu Cys Ile Ala Ala Lys Val | | | |
| | 485 | 490 | 495 |
| Arg Arg Leu Val Glu Leu Ala Arg Glu Glu Leu Ala Arg Asp Lys Cys | | | |
| | 500 | 505 | 510 |
| Val Val Ile Gly Leu Gln Ser Thr Gly Glu Ala Arg Thr Arg Glu Val | | | |
| | 515 | 520 | 525 |
| Leu Gly Glu Asn Asp Gly His Leu Asn Cys Phe Val Ser Ala Ala Glu | | | |
| 530 | 535 | 540 | |
| Gly Val Phe Leu Ser Leu Ile Gln Lys His Phe Pro Ser Thr Lys Arg | | | |
| 545 | 550 | 555 | 560 |
| Lys Arg Asp Arg Gly Ala Gly Ser Lys Arg Lys Arg Arg Pro Arg Gly | | | |
| | 565 | 570 | 575 |
| Arg Gly Ala Lys Ala Pro Arg Leu Ala Cys Glu Thr Ala Gly Val Ile | | | |
| | 580 | 585 | 590 |
| Arg Ile Ser Asp Asp Ser Ser Thr Glu Ser Asp Pro Gly Leu Asp Ser | | | |
| | 595 | 600 | 605 |
| Asp Phe Asn Ser Phe Pro Glu Ser Leu Val Asp Asp Asp Val Val Ile | | | |
| 610 | 615 | 620 | |
| Val Asp Ala Val Gly Leu Pro Ser Asp Asp Arg Gly Pro Leu Cys Leu | | | |
| 625 | 630 | 635 | 640 |
| Leu Gln Arg Asp Pro His Gly Pro Gly Val Leu Glu Arg Val Glu Arg | | | |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 645 | | 650 | | 655 |
| Leu Lys Gln Asp Leu Leu Asp Lys Val Arg Arg Leu Gly Arg Glu Leu | | | | | |
| | 660 | | 665 | | 670 |
| Pro Val Asn Thr Leu Asp Glu Leu Ile Asp Gln Leu Gly Gly Pro Gln | | | | | |
| | 675 | | 680 | | 685 |
| Arg Val Ala Glu Met Thr Gly Arg Lys Gly Arg Val Val Ser Arg Pro | | | | | |
| | 690 | | 695 | | 700 |
| Asp Gly Thr Val Ala Phe Glu Ser Arg Ala Glu Gln Gly Leu Ser Ile | | | | | |
| 705 | | 710 | | 715 | 720 |
| Asp His Val Asn Leu Arg Glu Lys Gln Arg Phe Met Ser Gly Glu Lys | | | | | |
| | 725 | | 730 | | 735 |
| Leu Val Ala Ile Ile Ser Glu Ala Ser Ser Ser Gly Val Ser Leu Gln | | | | | |
| | 740 | | 745 | | 750 |
| Ala Asp Arg Arg Val Gln Asn Gln Arg Arg Arg Val His Met Thr Leu | | | | | |
| | 755 | | 760 | | 765 |
| Glu Leu Pro Trp Ser Ala Asp Arg Ala Ile Gln Gln Phe Gly Arg Thr | | | | | |
| | 770 | | 775 | | 780 |
| His Arg Ser Asn Gln Val Ser Ala Pro Glu Tyr Val Phe Leu Ile Ser | | | | | |
| 785 | | 790 | | 795 | 800 |
| Glu Leu Ala Gly Glu Arg Arg Phe Ala Ser Ile Val Ala Lys Arg Leu | | | | | |
| | 805 | | 810 | | 815 |
| Glu Ser Leu Gly Ala Leu Thr His Gly Asp Arg Arg Ala Thr Glu Ser | | | | | |
| | 820 | | 825 | | 830 |
| Arg Asp Leu Ser Lys Tyr Asn Phe Glu Asn Lys Tyr Gly Thr Arg Ala | | | | | |
| | 835 | | 840 | | 845 |
| Leu His Cys Val Leu Thr Thr Ile Leu Ser Gln Thr Glu Asn Lys Val | | | | | |
| | 850 | | 855 | | 860 |
| Pro Val Pro Gln Gly Tyr Pro Gly Gly Val Pro Thr Phe Phe Arg Asp | | | | | |
| 865 | | 870 | | 875 | 880 |
| Met Lys Gln Gly Leu Leu Ser Val Gly Ile Gly Gly Arg Glu Ser Arg | | | | | |
| | 885 | | 890 | | 895 |
| Asn Gly Cys Leu Asp Val Glu Lys Asp Cys Ser Ile Thr Lys Phe Leu | | | | | |
| | 900 | | 905 | | 910 |
| Asn Arg Ile Leu Gly Leu Glu Val His Lys Gln Asn Ala Leu Phe Gln | | | | | |
| | 915 | | 920 | | 925 |
| Tyr Phe Ser Asp Thr Phe Asp His Leu Ile Glu Met Asp Lys Arg Glu | | | | | |

| | | | |
|---------------------|---------------------------------|-----------------|------|
| 930 | 935 | 940 | |
| Gly Lys Tyr Asp Met | Gly Ile Leu Asp Leu Ala Pro | Gly Ile Glu Glu | |
| 945 | 950 | 955 | 960 |
| Ile Tyr Glu Glu Ser | Gln Gln Val Phe Leu Ala Pro | Gly His Pro Gln | |
| | 965 | 970 | 975 |
| Asp Gly Gln Val Val | Phe Tyr Lys Ile Ser Val Asp | Arg Gly Leu Lys | |
| | 980 | 985 | 990 |
| Trp Glu Asp Ala Phe | Ala Lys Ser Leu Ala Leu Thr | Gly Pro Tyr Asp | |
| | 995 | 1000 | 1005 |
| Gly Phe Tyr Leu Ser | Tyr Lys Val Arg Gly Asn Lys Pro | Ser Cys Leu | |
| 1010 | 1015 | 1020 | |
| Leu Ala Glu Gln Asn | Arg Gly Gln Phe Phe Thr Val Tyr | Lys Pro Asn | |
| 1025 | 1030 | 1035 | 1040 |
| Ile Gly Arg Gln Ser | Gln Leu Glu Ala Leu Asp Ser | Leu Arg Arg Lys | |
| | 1045 | 1050 | 1055 |
| Phe His Arg Val Thr | Ala Glu Glu Ala Lys Glu Pro | Trp Glu Ser Gly | |
| | 1060 | 1065 | 1070 |
| Tyr Ala Leu Ser Leu | Thr His Cys Ser His Ser Ala Trp | Asn Arg His | |
| | 1075 | 1080 | 1085 |
| Cys Arg Leu Ala Gln | Glu Gly Lys Asp Cys Leu Gln Gly | Leu Arg Leu | |
| 1090 | 1095 | 1100 | |
| Arg His His Tyr Met | Leu Cys Gly Ala Leu Leu Arg Val | Trp Gly Arg | |
| 1105 | 1110 | 1115 | 1120 |
| Ile Ala Ala Val Met | Ala Asp Val Ser Ser Ser Ser Tyr | Leu Gln Ile | |
| | 1125 | 1130 | 1135 |
| Val Arg Leu Lys Thr | Lys Asp Arg Lys Lys Gln Val Gly | Ile Lys Ile | |
| | 1140 | 1145 | 1150 |
| Pro Glu Gly Cys Val | Arg Arg Val Leu Gln Glu Leu Arg | Leu Met Asp | |
| | 1155 | 1160 | 1165 |
| Ala Asp Val Lys Arg | Arg Gln Ala Pro Ala Leu Gly Cys | Pro Ala Pro | |
| 1170 | 1175 | 1180 | |
| Pro Ala Pro Arg Pro | Leu Ala Leu Pro Cys Gly Pro Gly | Glu Val Leu | |
| 1185 | 1190 | 1195 | 1200 |
| Asp Leu Thr Tyr Ser | Pro Pro Ala Glu Ala Phe Pro Pro | Pro Pro His | |
| | 1205 | 1210 | 1215 |
| Phe Ser Phe Pro Ala | Pro Leu Ser Leu Asp Ala Gly | Pro Gly Val Val | |

1220 1225 1230
 Pro Leu Gly Thr Pro Asp Ala Gln Ala Asp Pro Ala Ala Leu Ala His
 1235 1240 1245
 Gln Gly Cys Asp Ile Asn Phe Lys Glu Val Leu Glu Asp Met Leu Arg
 1250 1255 1260
 Ser Leu His Ala Gly Pro Pro Ser Glu Gly Ala Leu Gly Glu Gly Ala
 1265 1270 1275 1280
 Gly Ala Gly Gly Ala Ala Gly Gly Gly Pro Glu Arg Gln Ser Val Ile
 1285 1290 1295
 Gln Phe Ser Pro Pro Phe Pro Gly Ala Gln Ala Pro Leu
 1300 1305

<210> 2944

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2944

Met His Ile Ser Lys Leu Cys Pro Gly Ser Phe Ser Thr Phe Leu His
 1 5 10 15
 Ile Leu Phe Gln Ala Gly Val Gln Trp His Asp Leu Asn Ser Leu Gln
 20 25 30
 Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Phe Leu Ser Leu Leu Ser
 35 40 45
 Ser Trp Asp Tyr Arg His Ala Pro Pro His Pro Ala Asn Leu Cys Ile
 50 55 60
 Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Ser Gly Trp Ser Gln Thr
 65 70 75 80
 Pro Asp Leu Val Ile Arg Arg Pro Leu Pro Pro Lys Val Leu Val His
 85 90 95
 Ile Leu Phe Leu Ser Phe Leu Leu Leu Pro Leu Ala Leu Pro Thr Pro
 100 105 110
 Lys Leu Cys Ser Leu Lys Asp Leu Thr Trp Leu Thr Ala Gly Leu Ser
 115 120 125
 Arg

<210> 2945

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2945

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Met Trp Gly Gly Phe Ala Leu Val Ala Ile Gly Leu Gln Phe Gly Leu
  1             5             10            15
Lys Met Thr Gln Phe Leu Val Leu Arg Trp Arg Gly Ile Ala Leu Lys
          20             25            30
Phe Ala Cys Thr Arg Leu Ser Ala Ser Ile Tyr Met Thr Asp Ile Phe
      35             40            45
Val Thr His Arg Arg Cys Pro Trp Tyr Arg Val Tyr Ala Tyr Ile Ser
      50             55            60
Ile Phe Ile Leu Gly Thr His Glu Leu Leu Leu Ile Ile Ser Leu Tyr
      65             70            75            80
Leu Leu Glu Ser Val Phe Glu Lys Lys Lys Lys Asn Phe Cys Phe Asp
          85             90            95
Leu Trp Trp Ile His Leu Leu Lys Ile Ile Asn Leu Glu Asp Ile Arg
          100            105           110
Asn Asp Ile Gln Asn Lys Tyr Ser Glu Arg
      115             120

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<210> 2946

<211> 396

<212> PRT

<213> Homo sapiens

<400> 2946

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Met Leu Ala Lys Cys Leu Gln Leu Asn Val Lys Lys Gly Ser Phe Val
  1             5             10            15
Ala Lys Ile Ile Lys Val Ile Asn Phe Tyr Leu Val Cys Thr Leu Thr

```

| | | | | | |
|---|-----|--|-----|--|-----|
| | 20 | | 25 | | 30 |
| Ile Thr Leu Asn Ile Ile Met Lys Met Phe Val Pro His Lys Glu Asn | | | | | |
| | 35 | | 40 | | 45 |
| Gly His Met Leu Lys Phe Leu Glu Val Lys Phe Gly Leu Asn Met Thr | | | | | |
| | 50 | | 55 | | 60 |
| Lys Asn Phe Thr Met Asn Trp Leu Leu Cys Gln Glu Ser Leu Gln Ala | | | | | |
| | 65 | | 70 | | 75 |
| Pro Ser Gln Asp Phe Phe Leu Arg Leu Thr Gln Ser Ser Leu Leu Pro | | | | | |
| | 85 | | 90 | | 95 |
| Phe Tyr Ile Leu Val Leu Ile Ile Cys Phe Leu Ser Met Leu Gln Val | | | | | |
| | 100 | | 105 | | 110 |
| Thr Phe Arg Arg Ile Asn Gly Lys Ser Leu Lys Glu Thr Val Thr Leu | | | | | |
| | 115 | | 120 | | 125 |
| Glu Asp Gly Arg Ile Gly Glu Arg Pro Glu Ile Ile Tyr His Val Ile | | | | | |
| | 130 | | 135 | | 140 |
| His Thr Ile Leu Leu Gly Ser Leu Ala Met Val Ile Glu Gly Leu Lys | | | | | |
| | 145 | | 150 | | 155 |
| Tyr Ile Trp Ile Pro Tyr Val Cys Met Leu Ala Ala Phe Gly Val Cys | | | | | |
| | 165 | | 170 | | 175 |
| Ser Pro Glu Leu Trp Met Thr Leu Phe Lys Trp Leu Arg Leu Arg Thr | | | | | |
| | 180 | | 185 | | 190 |
| Val His Pro Ile Leu Leu Ala Leu Ile Leu Ser Met Ala Val Pro Thr | | | | | |
| | 195 | | 200 | | 205 |
| Ile Ile Gly Leu Ser Leu Trp Lys Glu Phe Phe Pro Arg Leu Met Thr | | | | | |
| | 210 | | 215 | | 220 |
| Glu Leu Met Glu Leu Gln Glu Phe Tyr Asp Pro Asp Thr Val Glu Leu | | | | | |
| | 225 | | 230 | | 235 |
| Met Thr Trp Ile Lys Arg Gln Ala Pro Val Ala Ala Val Phe Ala Gly | | | | | |
| | 245 | | 250 | | 255 |
| Ser Pro Gln Leu Met Gly Ala Ile Lys Leu Cys Thr Gly Trp Met Val | | | | | |
| | 260 | | 265 | | 270 |
| Thr Ser Leu Pro Leu Tyr Asn Asp Asp Asp Leu Leu Lys Arg Asn Glu | | | | | |
| | 275 | | 280 | | 285 |
| Asn Ile Tyr Gln Ile Tyr Ser Lys Arg Ser Ala Glu Asp Ile Tyr Lys | | | | | |
| | 290 | | 295 | | 300 |
| Ile Leu Thr Ser Tyr Lys Ala Asn Tyr Leu Ile Val Glu Asp Ala Ile | | | | | |

305 310 315 320
 Cys Asn Glu Val Gly Pro Met Arg Gly Cys Arg Val Lys Asp Leu Leu
 325 330 335
 Asp Ile Ala Asn Gly His Met Val Cys Glu Glu Gly Asp Lys Leu Thr
 340 345 350
 Tyr Ser Lys Tyr Gly Arg Phe Cys His Glu Val Lys Ile Asn Tyr Ser
 355 360 365
 Pro Tyr Val Asn Tyr Phe Thr Arg Val Tyr Trp Asn Arg Ser Tyr Phe
 370 375 380
 Val Tyr Lys Ile Asn Thr Val Ile Ser Phe Gln Ser
 385 390 395

<210> 2947

<211> 531

<212> PRT

<213> Homo sapiens

<400> 2947

Met Arg Asn Leu Ala Thr Ile Phe Leu Ala Val Val Met Ala Leu Leu
 1 5 10 15
 Ser Leu His Cys Leu Ala Ala Phe Lys Arg Leu Glu His Lys Glu Val
 20 25 30
 Leu Val Gly Leu Leu Phe Leu Val Phe Pro Phe Ile Pro Ala Ser Asn
 35 40 45
 Leu Phe Phe Arg Val Gly Phe Val Val Ala Glu Arg Val Leu Tyr Met
 50 55 60
 Pro Ser Met Gly Tyr Cys Ile Leu Phe Val His Gly Leu Ser Lys Leu
 65 70 75 80
 Cys Thr Trp Leu Asn Arg Cys Gly Ala Thr Thr Leu Ile Val Ser Thr
 85 90 95
 Val Leu Leu Leu Leu Leu Phe Ser Trp Lys Thr Val Lys Gln Asn Glu
 100 105 110
 Ile Trp Leu Ser Arg Glu Ser Leu Phe Arg Ser Gly Val Gln Thr Leu
 115 120 125
 Pro His Asn Ala Lys Val His Tyr Asn Tyr Ala Asn Phe Leu Lys Asp

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Gln Gly Arg Asn Lys Glu Ala Ile Tyr His Tyr Arg Thr Ala Leu Lys | | | |
| 145 | 150 | 155 | 160 |
| Leu Tyr Pro Arg His Ala Ser Ala Leu Asn Asn Leu Gly Thr Leu Thr | | | |
| | 165 | 170 | 175 |
| Arg Asp Thr Ala Glu Ala Lys Met Tyr Tyr Gln Arg Ala Leu Gln Leu | | | |
| | 180 | 185 | 190 |
| His Pro Gln His Asn Arg Ala Leu Phe Asn Leu Gly Asn Leu Leu Lys | | | |
| | 195 | 200 | 205 |
| Ser Gln Glu Lys Lys Glu Glu Ala Ile Thr Leu Leu Lys Asp Ser Ile | | | |
| 210 | 215 | 220 | |
| Lys Tyr Gly Pro Glu Phe Ala Asp Ala Tyr Ser Ser Leu Ala Ser Leu | | | |
| 225 | 230 | 235 | 240 |
| Leu Ala Glu Gln Glu Arg Phe Lys Glu Ala Glu Glu Ile Tyr Gln Thr | | | |
| | 245 | 250 | 255 |
| Gly Ile Lys Asn Cys Pro Asp Ser Ser Asp Leu His Asn Asn Tyr Gly | | | |
| | 260 | 265 | 270 |
| Val Phe Leu Val Asp Thr Gly Leu Pro Glu Lys Ala Val Ala His Tyr | | | |
| | 275 | 280 | 285 |
| Gln Gln Ala Ile Lys Leu Ser Pro Ser His His Val Ala Met Val Asn | | | |
| 290 | 295 | 300 | |
| Leu Gly Arg Leu Tyr Arg Ser Leu Gly Glu Asn Ser Met Ala Glu Glu | | | |
| 305 | 310 | 315 | 320 |
| Trp Tyr Lys Arg Ala Leu Gln Val Ala His Lys Ala Glu Ile Leu Ser | | | |
| | 325 | 330 | 335 |
| Pro Leu Gly Ala Leu Tyr Tyr Asn Thr Gly Arg Tyr Glu Glu Ala Leu | | | |
| | 340 | 345 | 350 |
| Gln Ile Tyr Gln Glu Ala Ala Ala Leu Gln Pro Ser Gln Arg Glu Leu | | | |
| | 355 | 360 | 365 |
| Arg Leu Ala Leu Ala Gln Val Leu Ala Val Met Gly Gln Thr Lys Glu | | | |
| | 370 | 375 | 380 |
| Ala Glu Lys Met Thr Asn His Ile Val Ser Glu Glu Thr Gly Cys Leu | | | |
| 385 | 390 | 395 | 400 |
| Glu Cys Tyr Arg Leu Leu Ser Ala Ile Tyr Ser Lys Gln Glu Asn His | | | |
| | 405 | 410 | 415 |
| Asp Lys Ala Leu Asp Ala Ile Asp Lys Ala Leu Gln Leu Lys Pro Lys | | | |

420 425 430
 Asp Pro Lys Val Ile Ser Glu Leu Phe Phe Thr Lys Gly Asn Gln Leu
 435 440 445
 Arg Glu Gln Asn Leu Leu Asp Lys Ala Phe Glu Ser Tyr Arg Val Ala
 450 455 460
 Val Gln Leu Asn Pro Asp Gln Ala Gln Ala Trp Met Asn Met Gly Gly
 465 470 475 480
 Ile Gln His Ile Lys Gly Lys Tyr Val Ser Ala Arg Ala Tyr Tyr Glu
 485 490 495
 Arg Ala Leu Gln Leu Val Pro Asp Ser Lys Leu Leu Lys Glu Asn Leu
 500 505 510
 Ala Lys Leu Asp Arg Leu Glu Lys Arg Leu Gln Glu Val Arg Glu Lys
 515 520 525
 Asp Gln Thr
 530

<210> 2948

<211> 409

<212> PRT

<213> Homo sapiens

<400> 2948

Met Arg Arg Tyr Leu Arg Val Val Val Leu Cys Val Ala Cys Gly Phe
 1 5 10 15
 Cys Ser Leu Leu Tyr Ala Phe Ser Gln Leu Ala Val Ser Leu Glu Glu
 20 25 30
 Gly Thr Gly Gly Gly Gly Gly Lys Pro Gln Ala Ala Val Ala Ser Trp
 35 40 45
 Leu Ala Gly Gly Gly Arg Gly Ala Val Arg Gly Ala Gly Val Ala Gly
 50 55 60
 Pro Ala Ala His Pro Gly Val Ser Asp Arg Tyr Ser Leu Lys Ile Gln
 65 70 75 80
 Pro Val Glu Lys Met His Leu Ala Val Val Ala Cys Gly Glu Arg Leu
 85 90 95
 Glu Glu Thr Met Thr Met Leu Lys Ser Ala Ile Ile Phe Ser Ile Lys

| | | |
|-----------------------------|-------------------------|-------------|
| 100 | 105 | 110 |
| Pro Leu Gln Phe His Ile Phe | Ala Glu Asp Gln Leu His | His Ser Phe |
| 115 | 120 | 125 |
| Lys Gly Arg Leu Asp Asn Trp | Ser Phe Leu Gln Thr Phe | Asn Tyr Thr |
| 130 | 135 | 140 |
| Leu Tyr Pro Ile Thr Phe Pro | Ser Glu Asn Ala Ala Glu | Trp Lys Lys |
| 145 | 150 | 155 |
| 160 | | |
| Leu Phe Lys Pro Cys Ala Ser | Gln Arg Leu Phe Leu Pro | Leu Ile Leu |
| 165 | 170 | 175 |
| Lys Glu Val Asp Ser Leu Leu | Tyr Val Asp Thr Asp Ile | Leu Phe Leu |
| 180 | 185 | 190 |
| Arg Pro Val Asp Asp Ile Trp | Ser Leu Leu Lys Lys Phe | Asn Ser Thr |
| 195 | 200 | 205 |
| Gln Ile Ala Ala Met Ala Pro | Glu His Glu Glu Pro Arg | Ile Gly Trp |
| 210 | 215 | 220 |
| Tyr Asn Arg Phe Ala Arg His | Pro Tyr Tyr Gly Lys Thr | Gly Val Asn |
| 225 | 230 | 235 |
| 240 | | |
| Ser Gly Val Met Leu Met Asn | Met Thr Arg Met Arg Arg | Lys Tyr Phe |
| 245 | 250 | 255 |
| Lys Asn Asp Met Thr Thr Val | Arg Leu Gln Trp Gly Asp | Ile Leu Met |
| 260 | 265 | 270 |
| Pro Leu Leu Lys Lys Tyr Lys | Leu Asn Ile Thr Trp Gly | Asp Gln Asp |
| 275 | 280 | 285 |
| Leu Leu Asn Ile Val Phe Phe | His Asn Pro Glu Ser Leu | Phe Val Phe |
| 290 | 295 | 300 |
| Pro Cys Gln Trp Asn Tyr Arg | Pro Asp His Cys Ile Tyr | Gly Ser Asn |
| 305 | 310 | 315 |
| 320 | | |
| Cys Gln Glu Ala Glu Glu Gly | Gly Ile Phe Ile Leu His | Gly Asn Arg |
| 325 | 330 | 335 |
| Gly Val Tyr His Asp Asp Lys | Gln Pro Ala Phe Arg Ala | Val Tyr Glu |
| 340 | 345 | 350 |
| Ala Leu Arg Asn Cys Ser Phe | Glu Asp Asp Asn Ile Arg | Ser Leu Leu |
| 355 | 360 | 365 |
| Lys Pro Leu Glu Leu Glu Leu | Gln Lys Thr Val His Thr | Tyr Cys Gly |
| 370 | 375 | 380 |
| Lys Ile Tyr Lys Ile Phe Ile | Lys Gln Leu Ala Lys Ser | Val Arg Asp |

| | | |
|---|-----|-----|
| 195 | 200 | 205 |
| Phe Ile Gly Phe Ser Phe Leu Val Val Leu Thr Ser Tyr Tyr Ser Phe | | |
| 210 | 215 | 220 |
| Val Ser His Leu Arg Lys Ile Arg Thr Cys Thr Ser Ile Met Glu Lys | | |
| 225 | 230 | 235 |
| Asp Leu Thr Tyr Ser Ser Val Lys Arg His Leu Leu Val Ile Gln Ile | | |
| 245 | 250 | 255 |
| Leu Leu Ile Val Cys Phe Leu Pro Tyr Ser Ile Phe Lys Pro Ile Phe | | |
| 260 | 265 | 270 |
| Tyr Val Leu His Gln Arg Asp Asn Cys Gln Gln Leu Asn Tyr Leu Ile | | |
| 275 | 280 | 285 |
| Glu Thr Lys Asn Ile Leu Thr Cys Leu Ala Ser Ala Arg Ser Ser Thr | | |
| 290 | 295 | 300 |
| Asp Pro Ile Ile Phe Leu Leu Leu Asp Lys Thr Phe Lys Lys Thr Leu | | |
| 305 | 310 | 315 |
| Tyr Asn Leu Phe Thr Lys Ser Asn Ser Ala His Met Gln Ser Tyr Gly | | |
| 325 | 330 | 335 |

<210> 2950

<211> 373

<212> PRT

<213> Homo sapiens

<400> 2950

| |
|---|
| Met Leu Lys Arg Lys Pro Ser Asn Val Ser Glu Lys Glu Lys His Gln |
| 1 5 10 15 |
| Lys Pro Lys Arg Ser Ser Ser Phe Gly Asn Phe Asp Arg Phe Arg Asn |
| 20 25 30 |
| Asn Ser Leu Ser Lys Pro Asp Asp Ser Thr Glu Ala His Glu Gly Asp |
| 35 40 45 |
| Pro Thr Asn Gly Ser Gly Glu Gln Ser Lys Thr Ser Asn Asn Gly Gly |
| 50 55 60 |
| Gly Leu Gly Lys Lys Met Arg Ala Ile Ser Trp Thr Met Lys Lys Lys |
| 65 70 75 80 |
| Val Gly Lys Lys Tyr Ile Lys Ala Leu Ser Glu Glu Lys Asp Glu Glu |

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Asp Gly Glu Asn Ala His Pro Tyr Gly Asn Ser Asp Pro Val Ile Gly | | | |
| 100 | 105 | 110 | |
| Thr His Thr Glu Lys Val Ser Leu Lys Ala Ser Asp Ser Met Asp Ser | | | |
| 115 | 120 | 125 | |
| Leu Tyr Ser Gly Gln Ser Ser Ser Ser Gly Ile Thr Ser Cys Ser Asp | | | |
| 130 | 135 | 140 | |
| Gly Thr Ser Asn Arg Asp Ser Phe Arg Leu Asp Asp Asp Gly Pro Tyr | | | |
| 145 | 150 | 155 | 160 |
| Ser Gly Pro Phe Cys Gly Arg Ala Arg Val His Thr Asp Phe Thr Pro | | | |
| 165 | 170 | 175 | |
| Ser Pro Tyr Asp Thr Asp Ser Leu Lys Ile Lys Lys Gly Asp Ile Ile | | | |
| 180 | 185 | 190 | |
| Asp Ile Ile Cys Lys Thr Pro Met Gly Met Trp Thr Gly Met Leu Asn | | | |
| 195 | 200 | 205 | |
| Asn Lys Val Gly Asn Phe Lys Phe Ile Tyr Val Asp Val Ile Ser Glu | | | |
| 210 | 215 | 220 | |
| Glu Glu Ala Ala Pro Lys Lys Ile Lys Ala Asn Arg Arg Ser Asn Ser | | | |
| 225 | 230 | 235 | 240 |
| Lys Lys Ser Lys Thr Leu Gln Glu Phe Leu Glu Arg Ile His Leu Gln | | | |
| 245 | 250 | 255 | |
| Glu Tyr Thr Ser Thr Leu Leu Leu Asn Gly Tyr Glu Thr Leu Glu Asp | | | |
| 260 | 265 | 270 | |
| Leu Lys Asp Ile Lys Glu Ser His Leu Ile Glu Leu Asn Ile Glu Asn | | | |
| 275 | 280 | 285 | |
| Pro Asp Asp Arg Arg Arg Leu Leu Ser Ala Ala Glu Asn Phe Leu Glu | | | |
| 290 | 295 | 300 | |
| Glu Glu Ile Ile Gln Glu Gln Glu Asn Glu Pro Glu Pro Leu Ser Leu | | | |
| 305 | 310 | 315 | 320 |
| Ser Ser Asp Ile Ser Leu Asn Lys Ser Gln Leu Asp Asp Cys Pro Arg | | | |
| 325 | 330 | 335 | |
| Asp Ser Gly Cys Tyr Ile Ser Ser Gly Asn Ser Asp Asn Gly Lys Glu | | | |
| 340 | 345 | 350 | |
| Asp Leu Glu Ser Glu Asn Leu Ser Asp Met Val His Lys Ile Ile Ile | | | |
| 355 | 360 | 365 | |

Thr Glu Pro Ser Asp

370

<210> 2951

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2951

Met His His Thr Glu Gly Pro His Gly Thr Arg Pro Leu Arg Pro Gly

1 5 10 15

Ile Leu Met Gln Lys Thr His Ala Thr Phe Leu Arg Ile Ala Leu Thr

20 25 30

Asn Thr Gln Arg Asp Val Lys Gly Trp Thr Ser Phe His Thr Pro Ala

35 40 45

Asp Ala Glu Leu Gly Val Ala Ser His Arg Pro Gly Ser Val Leu Gln

50 55 60

Ala Arg Pro Leu Leu Ala Val Arg Leu Trp Ala Gly Lys Gln Lys Ala

65 70 75 80

Gly Lys Glu Leu Ser Cys Thr Cys Phe Leu Ile Val Phe Ser Pro Thr

85 90 95

Ile Leu His Ile Ser Gly Arg His Ile Leu Val Ser Arg Asn Ser

100 105 110

<210> 2952

<211> 154

<212> PRT

<213> Homo sapiens

<400> 2952

Met Asn Arg Cys Ala Arg Cys Arg Ile Glu Asn Cys Asp Ser Cys Phe

1 5 10 15

Ser Lys Asp Phe Cys Thr Lys Cys Lys Val Gly Phe Tyr Leu His Arg

20 25 30

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2953

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Glu | Glu | Gln | Asn | Ser | Ser | Ile | Ser | Pro | Ser | Asn | Gly | Val | Glu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Arg | Arg | Ala | Ala | Thr | Leu | Tyr | Ser | Gln | Tyr | Thr | Ser | Lys | Asn | Asp | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Arg | Ser | Phe | Glu | Gly | Thr | Leu | Tyr | Lys | Arg | Gly | Ala | Leu | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Trp | Lys | Pro | Arg | Trp | Phe | Val | Leu | Asp | Val | Thr | Lys | His | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Tyr | Tyr | Asp | Ser | Gly | Glu | Asp | Thr | Ser | Cys | Lys | Gly | His | Ile | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Ala | Glu | Val | Glu | Met | Val | Ile | Pro | Ala | Gly | Pro | Ser | Met | Gly | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Pro Lys His Thr Ser Asp Lys Ala Phe Phe Asp Leu Lys Thr Ser Lys
 100 105 110
 Arg Val Tyr Asn Phe Cys Ala Gln Asp Gly Gln Ser Ala Gln Gln Trp
 115 120 125
 Met Asp Lys Ile Gln Ser Cys Ile Ser Asp Ala
 130 135

<210> 2954

<211> 213

<212> PRT

<213> Homo sapiens

<400> 2954

Met Val Thr Ser Trp Ser Ala Cys Thr Arg Ser Cys Gly Gly Gly Val
 1 5 10 15
 Gln Thr Arg Arg Val Thr Cys Gln Lys Leu Lys Ala Ser Gly Ile Ser
 20 25 30
 Thr Pro Val Ser Asn Asp Met Cys Thr Gln Val Ala Lys Arg Pro Val
 35 40 45
 Asp Thr Gln Ala Cys Asn Gln Gln Leu Cys Val Glu Trp Ala Phe Ser
 50 55 60
 Ser Trp Gly Gln Cys Asn Gly Pro Cys Ile Gly Pro His Leu Ala Val
 65 70 75 80
 Gln His Arg Gln Val Phe Cys Gln Thr Arg Asp Gly Ile Thr Leu Pro
 85 90 95
 Ser Glu Gln Cys Ser Ala Leu Pro Arg Pro Val Ser Thr Gln Asn Cys
 100 105 110
 Trp Ser Glu Ala Cys Ser Val His Trp Arg Val Ser Leu Trp Thr Leu
 115 120 125
 Cys Thr Ala Thr Cys Gly Asn Tyr Gly Phe Gln Ser Arg Arg Val Glu
 130 135 140
 Cys Val His Ala Arg Thr Asn Lys Ala Val Pro Glu His Leu Cys Ser
 145 150 155 160
 Trp Gly Pro Arg Pro Ala Asn Trp Gln Arg Cys Asn Ile Thr Pro Cys
 165 170 175

Glu Asn Met Glu Cys Arg Asp Thr Thr Arg Tyr Cys Glu Lys Val Lys
 180 185 190
 Gln Leu Lys Leu Cys Gln Leu Ser Gln Phe Lys Ser Arg Cys Cys Gly
 195 200 205
 Thr Cys Gly Lys Ala
 210

<210> 2955

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2955

Met Cys Val Arg Arg Ser Leu Val Gly Leu Thr Phe Cys Thr Cys Tyr
 1 5 10 15
 Leu Ala Ser Tyr Leu Thr Asn Lys Tyr Val Leu Ser Val Leu Lys Phe
 20 25 30
 Thr Tyr Pro Thr Leu Phe Gln Gly Ser His Val Leu Val Trp Leu Pro
 35 40 45
 Ala Ser Val Leu Phe Val Gly Ile Ile Tyr Ala Gly Ser Arg Ala Leu
 50 55 60
 Ser Arg Leu Ala Ile Pro Val Phe Leu Thr Leu His Asn Val Ala Glu
 65 70 75 80
 Val Ile Ile Cys Gly Tyr Gln Lys Cys Phe Gln Lys Glu Lys Thr Ser
 85 90 95
 Pro Ala Lys Ile Cys Arg Leu His Leu Glu Arg Thr Arg Gln Asn Gln
 100 105 110
 Thr Ser Arg Leu Ser Ser Cys Leu Lys Gly Asp
 115 120

<210> 2956

<211> 333

<212> PRT

<213> Homo sapiens

<400> 2956

Met Ile Ser Thr Arg Tyr Arg Arg Arg Arg Asp Ala Pro Arg Gly Pro
 1 5 10 15
 Gly Arg Cys Pro Pro His Pro Thr Arg Pro Arg Gly Pro Gly Arg Lys
 20 25 30
 Arg Gly Ala Ala Gly Ser Pro Gly Ala Ala Pro Ser Ala Ser Arg Arg
 35 40 45
 Pro Glu Phe Pro Lys Pro Leu Arg Val Leu Pro Trp Arg Glu Arg Gly
 50 55 60
 Arg Gly Gly Arg Glu Trp Pro Met Ser Leu Arg Ser Pro Leu Pro Thr
 65 70 75 80
 Ser Ala Cys Gly Trp Gly Glu Ser Gly Arg Arg Ala Gly Pro Gly Arg
 85 90 95
 Ala Pro Cys Gly Pro Arg Thr Gly Leu Ser Ala Arg Ala Val Leu Leu
 100 105 110
 Ser Ala Arg Ala Arg Leu Val Ser Ser Val His Ala Val Leu Ala Thr
 115 120 125
 Gly Ser Gly Ile Val Ile Ile Arg Ser Cys Asp Asp Val Ile Thr Gly
 130 135 140
 Arg His Trp Leu Ala Arg Glu Tyr Val Trp Phe Leu Ile Pro Tyr Met
 145 150 155 160
 Ile Tyr Asp Ser Tyr Ala Met Tyr Leu Cys Glu Trp Cys Arg Thr Arg
 165 170 175
 Asp Gln Asn Arg Ala Pro Ser Leu Thr Leu Arg Asn Phe Leu Ser Arg
 180 185 190
 Asn Arg Leu Met Ile Thr His His Ala Val Ile Leu Phe Val Leu Val
 195 200 205
 Pro Val Ala Gln Arg Leu Arg Gly Asp Leu Gly Asp Phe Phe Val Gly
 210 215 220
 Cys Ile Phe Thr Ala Glu Leu Ser Thr Pro Phe Val Ser Leu Gly Arg
 225 230 235 240
 Val Leu Ile Gln Leu Lys Gln Gln His Thr Leu Leu Tyr Lys Val Asn
 245 250 255
 Gly Ile Leu Thr Leu Ala Thr Phe Leu Ser Cys Arg Ile Leu Leu Phe

260 265 270
 Pro Phe Met Tyr Trp Ser Tyr Gly Arg Gln Gln Gly Leu Ser Leu Leu
 275 280 285
 Gln Val Pro Phe Ser Ile Pro Phe Tyr Cys Asn Val Ala Asn Ala Phe
 290 295 300
 Leu Val Ala Pro Gln Ile Tyr Trp Phe Cys Leu Leu Cys Arg Lys Ala
 305 310 315 320
 Val Arg Leu Phe Asp Thr Pro Gln Ala Lys Lys Asp Gly
 325 330

<210> 2957

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2957

Met Tyr Arg Gln Arg Phe Leu Tyr Ser Leu Tyr Arg His Thr His Trp
 1 5 10 15
 Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Cys
 20 25 30
 Ser Glu Asp Lys Thr Ile Lys Ile Trp Asp Thr Thr Asn Lys Gln Cys
 35 40 45
 Val Asn Asn Phe Ser Asp Ser Val Gly Asp Leu Ser Leu Leu Phe His
 50 55 60
 Phe Gln Lys Val Glu Ser Tyr Leu His Gln Glu Val Gln Thr His Arg
 65 70 75 80
 Ser Tyr Tyr Gly Gly Leu Thr Leu Met Asn Cys Ile Val Lys Val Leu
 85 90 95
 Pro Lys Glu Ile Ser Lys Asp Tyr Ile Leu Ile His His His Ile Phe
 100 105 110
 Leu Ile Ser Thr Gln Glu His His Ile Pro Met Arg Lys Lys Leu Arg
 115 120 125
 Leu

<210> 2958

<211> 191

<212> PRT

<213> Homo sapiens

<400> 2958

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Met Val Leu Cys His Ala Asn Lys Ala Glu Arg Val Leu Val Phe Pro
  1             5             10             15
Ser Gly Ser Leu Leu Thr Lys Ser Ser Glu Thr His Ile Arg Phe Leu
      20             25             30
Gln Cys Ser Gln Arg Gln Gly Trp Gln Leu Ala Gly Tyr Gly Gln Val
      35             40             45
Trp Arg Lys Glu Ser Ser Tyr Lys Pro Gly Gly Arg Asn Gly Lys Leu
      50             55             60
Gly Thr Gln Lys Gly Pro Arg Asn Gly Gln Cys His Thr Arg Leu Gly
      65             70             75             80
Leu Val Leu Trp Val Met Trp Pro Pro Leu Thr Ala His Val Arg Trp
      85             90             95
Ser Gln Phe Arg Ala Arg Arg Trp Gly Cys Thr Gly Glu Gly Leu Ala
      100            105            110
Leu Cys Gln Ala Leu Gly Val His Gly Arg Gly Ala Gly Ser Val Pro
      115            120            125
Gly Ala Gly Gly Ala Arg Glu Arg Gly Trp Leu Cys Ala Arg Arg Cys
      130            135            140
Gly Cys Thr Gly Glu Gly Leu Ala Leu Cys Gln Ala Leu Gly Val His
      145            150            155            160
Gly Arg Gly Ala Gly Phe Trp Ala Ala Gly Thr Val His Gly Gln Ala
      165            170            175
Val His Ser Glu Val Arg Gly Pro Pro Lys Ser Arg Ser Lys Leu
      180            185            190

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<210> 2959

<211> 467

<212> PRT

<213> Homo sapiens

<400> 2959

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Met Arg Val Ser Ser His Lys Gln Pro Ala Leu Lys Ala Thr Ser Asp
  1             5             10             15
Lys Glu Asn Ser Val Pro Asn Met Ala Thr Glu Thr Lys Asp Glu Gln
      20             25             30
Ile Ser Gly Thr Val Ser Ser Gln Lys Gln Pro Ala Leu Lys Ala Thr
      35             40             45
Ser Asp Lys Lys Asp Ser Val Ser Asn Ile Pro Thr Glu Ile Lys Asp
      50             55             60
Gly Gln Gln Ser Gly Thr Val Ser Ser Gln Lys Gln Pro Ala Trp Lys
      65             70             75             80
Ala Thr Ser Val Lys Lys Asp Ser Val Ser Asn Ile Ala Thr Glu Ile
      85             90             95
Lys Asp Gly Gln Ile Arg Gly Thr Val Ser Ser Gln Arg Gln Pro Ala
      100            105            110
Leu Lys Ala Thr Gly Asp Glu Lys Asp Ser Val Ser Asn Ile Ala Arg
      115            120            125
Glu Ile Lys Asp Gly Glu Lys Ser Gly Thr Val Ser Pro Gln Lys Gln
      130            135            140
Ser Ala Gln Lys Val Ile Phe Lys Lys Lys Val Ser Leu Leu Asn Ile
      145            150            155            160
Ala Thr Arg Ile Thr Ser Gly Trp Lys Ser Gly Thr Glu Tyr Pro Glu
      165            170            175
Asn Leu Pro Thr Leu Lys Ala Thr Ile Glu Asn Lys Asn Ser Val Leu
      180            185            190
Asn Thr Ala Thr Lys Met Lys Asp Val Gln Thr Ser Thr Pro Glu Gln
      195            200            205
Asp Leu Glu Met Ala Ser Glu Gly Glu Gln Lys Arg Leu Glu Glu Tyr
      210            215            220
Glu Asn Asn Gln Pro Gln Val Lys Asn Gln Ile His Ser Arg Asp Asp
      225            230            235            240
Leu Asp Asp Ile Ile Gln Ser Ser Gln Thr Val Ser Glu Asp Gly Asp
      245            250            255
Ser Leu Cys Cys Asn Cys Lys Asn Val Ile Leu Leu Ile Asp Gln His

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| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Glu Met Lys Cys Lys Asp Cys Val His Leu Leu Lys Ile Lys Lys Thr | | |
| 275 | 280 | 285 |
| Phe Cys Leu Cys Lys Arg Leu Thr Glu Leu Lys Asp Asn His Cys Glu | | |
| 290 | 295 | 300 |
| Gln Leu Arg Val Lys Ile Arg Lys Leu Lys Asn Lys Ala Ser Val Leu | | |
| 305 | 310 | 315 |
| Gln Lys Arg Leu Ser Glu Lys Glu Glu Ile Lys Ser Gln Leu Lys His | | |
| 325 | 330 | 335 |
| Glu Thr Leu Glu Leu Glu Lys Glu Leu Cys Ser Leu Arg Phe Ala Ile | | |
| 340 | 345 | 350 |
| Gln Gln Glu Lys Lys Lys Arg Arg Asn Val Glu Glu Val His Gln Lys | | |
| 355 | 360 | 365 |
| Val Arg Glu Lys Leu Arg Ile Thr Glu Glu Gln Tyr Arg Ile Glu Ala | | |
| 370 | 375 | 380 |
| Asp Val Thr Lys Pro Ile Lys Pro Ala Leu Lys Ser Ala Glu Val Glu | | |
| 385 | 390 | 395 |
| Leu Lys Thr Gly Gly Asn Asn Ser Asn Gln Val Ser Glu Thr Asp Glu | | |
| 405 | 410 | 415 |
| Lys Glu Asp Leu Leu His Glu Asn Arg Leu Met Gln Asp Glu Ile Ala | | |
| 420 | 425 | 430 |
| Arg Leu Arg Leu Glu Lys Asp Thr Ile Lys Asn Gln Asn Leu Glu Lys | | |
| 435 | 440 | 445 |
| Lys Tyr Leu Lys Asp Phe Glu Ile Val Lys Arg Lys His Glu Asp Leu | | |
| 450 | 455 | 460 |
| Gln Lys Ala | | |
| 465 | | |

<210> 2960

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2960

Met His Ser Glu Pro Gly Ala Arg Leu Val Leu Thr Leu Gln Thr Leu

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ser Arg Ala Leu Ser Asn Leu Lys Ala Cys Trp Gly Cys Asn Val Thr | | | |
| 20 | 25 | 30 | |
| Phe Thr His Ala Gly Pro Phe Gln Lys Ser Ala Arg Ser Cys Asn Trp | | | |
| 35 | 40 | 45 | |
| Cys Tyr Phe Ser Cys Ser Gly Thr Met Cys Ser Thr Thr Gly Val Ser | | | |
| 50 | 55 | 60 | |
| Ala Leu Pro Lys Ser Lys Phe His Leu Ser Ala Lys Cys Arg Gly Ile | | | |
| 65 | 70 | 75 | 80 |
| Cys Phe Leu Leu Ser Ser His Arg Ile Val Gly His Leu Phe Ala Gly | | | |
| 85 | 90 | 95 | |
| Leu Leu Arg Asp Phe Leu Ala Ile Tyr Leu Gln Ala Phe Phe Pro Ser | | | |
| 100 | 105 | 110 | |
| Pro Lys Phe Leu Gly Trp Leu Cys Leu Leu Lys Glu Pro Val Phe Thr | | | |
| 115 | 120 | 125 | |
| Lys Leu His Ser Gly Ala Ser Val Arg Cys Leu Arg Ser Tyr Cys Arg | | | |
| 130 | 135 | 140 | |
| Pro Phe Arg Thr Pro Ser Gln Glu Arg Thr Leu Gln Pro Leu Ala Arg | | | |
| 145 | 150 | 155 | 160 |
| Asp Ser Thr Phe Phe Leu Ile Leu Phe Leu Thr Leu Leu Leu Leu Leu | | | |
| 165 | 170 | 175 | |
| Leu Pro Thr Asn Ser Ile Ser Phe Phe Phe Leu Phe Leu Ser Phe Ser | | | |
| 180 | 185 | 190 | |
| Tyr Ser Ser Phe Pro Pro Ser Leu Ser Cys | | | |
| 195 | 200 | | |

<210> 2961

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2961

| |
|--|
| Met His Ser Glu Pro Gly Ala Arg Leu Val Leu Thr Leu Gln Thr Leu |
| 1 5 10 15 |
| Ser Arg Ala Leu Ser Asn Leu Lys Ala Cys Trp Gly Cys Asn Val Ser |

20 25 30
 Phe Thr His Ala Gly Pro Phe Gln Lys Ser Ala Arg Ser Cys Asn Trp
 35 40 45
 Cys Tyr Phe Ser Cys Ser Gly Thr Met Cys Ser Thr Thr Gly Val Ser
 50 55 60
 Ala Leu Pro Lys Ser Lys Phe His Leu Ser Ala Lys Cys Arg Gly Ile
 65 70 75 80
 Cys Phe Leu Leu Ser Ser His Arg Ile Val Gly His Leu Phe Ala Gly
 85 90 95
 Leu Leu Arg Asp Phe Leu Ala Ile Tyr Leu Gln Ala Phe Phe Pro Ser
 100 105 110
 Pro Lys Phe Leu Gly Trp Leu Cys Leu Leu Lys Glu Pro Val Phe Thr
 115 120 125
 Lys Leu His Ser Gly Ala Ser Val Arg Cys Leu Arg Ser Tyr Cys Arg
 130 135 140
 Pro Phe Arg Thr Pro Ser Gln Glu Arg Thr Leu Gln Pro Leu Ala Arg
 145 150 155 160
 Asp Ser Thr Phe Phe Leu Ile Leu Phe Leu Thr Leu Leu Leu Leu Leu
 165 170 175
 Leu Pro Thr Asn Ser Ile Ser Phe Phe Phe Leu Phe Leu Ser Phe Ser
 180 185 190
 Tyr Ser Ser Phe Pro Pro Ser Leu Ser Cys
 195 200

<210> 2962

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2962

Met Arg Met Lys Gly Tyr Lys Ala Leu Pro Pro Phe Gln Leu Pro Thr
 1 5 10 15
 Cys Ser Ser Ser Thr Pro Leu Arg Phe Gly Pro Pro Arg Thr Asn Glu
 20 25 30

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Val | His | Thr | Leu | Trp | Met | Arg | Lys | Arg | Gly | Ser | Trp | Leu | Ala | Ser | Leu | |
| 35 | | | | | | 40 | | | | | | 45 | | | | |
| Leu | Pro | Val | Ile | Gln | Phe | Glu | Asp | Ile | Leu | Thr | Leu | Gly | Lys | Asp | Glu | |
| 50 | | | | | | 55 | | | | | | 60 | | | | |
| Val | Leu | Lys | Pro | Gln | Leu | Leu | Ser | Thr | Arg | Ser | His | Ser | Ser | Trp | Gly | |
| 65 | | | | | | 70 | | | | | | 75 | | | 80 | |
| Arg | Gln | Arg | Gly | Lys | Ser | Leu | Ser | Lys | Val | Tyr | Pro | Ala | Ser | Leu | Arg | |
| | | | 85 | | | | | | 90 | | | | | | 95 | |
| Phe | Ile | Asp | Leu | His | Lys | Arg | Gln | Cys | Ser | Gly | Lys | Gly | Arg | Gly | Pro | |
| | | | 100 | | | | | | 105 | | | | | | 110 | |
| Gln | Lys | Gly | Ala | Trp | Gln | Asp | Arg | Gly | Cys | | | | | | | |
| 115 | | | | | | 120 | | | | | | | | | | |

<210> 2963

<211> 939

<212> PRT

<213> Homo sapiens

<400> 2963

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Pro | Gln | Met | Tyr | Glu | Phe | His | Leu | Pro | Leu | Ser | Pro | Glu | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Lys | Ser | Gly | Gly | Val | Asn | Gln | Tyr | Val | Val | Gln | Glu | Val | Leu |
| | | | | 20 | | | | 25 | | | | | 30 | | |
| Ser | Ile | Lys | His | Leu | Pro | Pro | Gln | Leu | Arg | Ala | Phe | Gln | Ala | Ala | Phe |
| | | | | 35 | | | | 40 | | | | | 45 | | |
| Arg | Ala | Gln | Gly | Pro | Leu | Ala | Met | Leu | Gln | His | Phe | Asp | Thr | Ile | Tyr |
| | | | | 50 | | | | 55 | | | | 60 | | | |
| Ser | Ile | Leu | His | Leu | Val | Thr | Gly | Cys | Cys | Tyr | Arg | Leu | Leu | Glu | Asn |
| | | | | 65 | | | | 70 | | | | 75 | | | 80 |
| Pro | Thr | Ile | Asn | His | Gln | Lys | Asn | Arg | Pro | Thr | Arg | Glu | Ala | Ile | Thr |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| His | Leu | Leu | Gly | Val | Ala | Leu | Thr | Arg | Tyr | Asn | His | Met | Leu | Ser | Ala |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Thr | Val | Lys | Ile | Ile | Gln | Met | Leu | Gln | His | Phe | Glu | His | Leu | Ala | Pro |
| | | | | 115 | | | | 120 | | | | | 125 | | |

Val Leu Val Ala Ala Val Ser Leu Trp Ala Thr Asp Tyr Gly Met Lys
130 135 140
Ser Ile Val Gly Glu Ile Val Arg Glu Ile Gly Gln Lys Cys Pro Gln
145 150 155 160
Glu Leu Ser Arg Asp Pro Ser Gly Thr Lys Gly Phe Ala Ala Phe Leu
165 170 175
Thr Glu Leu Ala Glu Arg Val Pro Ala Ile Leu Met Ser Ser Met Cys
180 185 190
Ile Leu Leu Asp His Leu Asp Gly Glu Asn Tyr Met Met Arg Asn Ala
195 200 205
Val Leu Ala Ala Met Ala Glu Met Val Leu Gln Val Leu Ser Gly Asp
210 215 220
Gln Leu Glu Ala Ala Ala Arg Asp Thr Arg Asp Gln Phe Leu Asp Thr
225 230 235 240
Leu Gln Ala His Gly His Asp Val Asn Ser Phe Val Arg Ser Arg Val
245 250 255
Leu Gln Leu Phe Thr Arg Ile Val Gln Gln Lys Ala Leu Pro Leu Thr
260 265 270
Arg Phe Gln Ala Val Val Ala Leu Ala Val Gly Arg Leu Ala Asp Lys
275 280 285
Ser Val Leu Val Cys Lys Asn Ala Ile Gln Leu Leu Ala Ser Phe Leu
290 295 300
Ala Asn Asn Pro Phe Ser Cys Lys Leu Ser Asp Ala Asp Leu Ala Gly
305 310 315 320
Pro Leu Gln Lys Glu Thr Gln Lys Leu Gln Glu Met Arg Ala Gln Arg
325 330 335
Arg Thr Ala Ala Ala Ser Ala Val Leu Asp Pro Glu Glu Glu Trp Glu
340 345 350
Ala Met Leu Pro Glu Leu Lys Ser Thr Leu Gln Gln Leu Leu Gln Leu
355 360 365
Pro Gln Gly Glu Glu Glu Ile Pro Glu Gln Ile Ala Asn Thr Glu Thr
370 375 380
Thr Glu Asp Val Lys Gly Arg Ile Tyr Gln Leu Leu Ala Lys Ala Ser
385 390 395 400
Tyr Lys Lys Ala Ile Ile Leu Thr Arg Glu Ala Thr Gly His Phe Gln
405 410 415

Glu Ser Glu Pro Phe Ser His Ile Asp Pro Glu Glu Ser Glu Glu Thr
 420 425 430
 Arg Leu Leu Asn Ile Leu Gly Leu Ile Phe Lys Gly Pro Ala Ala Ser
 435 440 445
 Thr Gln Glu Lys Asn Pro Arg Glu Ser Thr Gly Asn Met Val Thr Gly
 450 455 460
 Gln Thr Val Cys Lys Asn Lys Pro Asn Met Ser Asp Pro Glu Glu Ser
 465 470 475 480
 Arg Gly Asn Asp Glu Leu Val Lys Gln Glu Met Leu Val Gln Tyr Leu
 485 490 495
 Gln Asp Ala Tyr Ser Phe Ser Arg Lys Ile Thr Glu Ala Ile Gly Ile
 500 505 510
 Ile Ser Lys Met Met Tyr Glu Asn Thr Thr Thr Val Val Gln Glu Val
 515 520 525
 Ile Glu Phe Phe Val Met Val Phe Gln Phe Gly Val Pro Gln Ala Leu
 530 535 540
 Phe Gly Val Arg Arg Met Leu Pro Leu Ile Trp Ser Lys Glu Pro Gly
 545 550 555 560
 Val Arg Glu Ala Val Leu Asn Ala Tyr Arg Gln Leu Tyr Leu Asn Pro
 565 570 575
 Lys Gly Asp Ser Ala Arg Ala Lys Ala Gln Ala Leu Ile Gln Asn Leu
 580 585 590
 Ser Leu Leu Leu Val Asp Ala Ser Val Gly Thr Ile Gln Cys Leu Glu
 595 600 605
 Glu Ile Leu Cys Glu Phe Val Gln Lys Asp Glu Leu Lys Pro Ala Val
 610 615 620
 Thr Gln Leu Leu Trp Glu Arg Ala Thr Glu Lys Val Ala Cys Cys Pro
 625 630 635 640
 Leu Glu Arg Cys Ser Ser Val Met Leu Leu Gly Met Met Ala Arg Gly
 645 650 655
 Lys Pro Glu Ile Val Gly Ser Asn Leu Asp Thr Leu Val Ser Ile Gly
 660 665 670
 Leu Asp Glu Lys Phe Pro Gln Asp Tyr Arg Leu Ala Gln Gln Val Cys
 675 680 685
 His Ala Ile Ala Asn Ile Ser Asp Arg Arg Lys Pro Ser Leu Gly Lys
 690 695 700

Arg His Pro Pro Phe Arg Leu Pro Gln Glu His Arg Leu Phe Glu Arg
 705 710 715 720
 Leu Arg Glu Thr Val Thr Lys Gly Phe Val His Pro Asp Pro Leu Trp
 725 730 735
 Ile Pro Phe Lys Glu Val Ala Val Thr Leu Ile Tyr Gln Leu Ala Glu
 740 745 750
 Gly Pro Glu Val Ile Cys Ala Gln Ile Leu Gln Gly Cys Ala Lys Gln
 755 760 765
 Ala Leu Glu Lys Leu Glu Glu Lys Arg Thr Ser Gln Glu Asp Pro Lys
 770 775 780
 Glu Ser Pro Ala Met Leu Pro Thr Phe Leu Leu Met Asn Leu Leu Ser
 785 790 795 800
 Leu Ala Gly Asp Val Ala Leu Gln Gln Leu Val His Leu Glu Gln Ala
 805 810 815
 Val Ser Gly Glu Leu Cys Arg Arg Arg Val Leu Arg Glu Glu Gln Glu
 820 825 830
 His Lys Thr Lys Asp Pro Lys Glu Lys Asn Thr Ser Ser Glu Thr Thr
 835 840 845
 Met Glu Glu Glu Leu Gly Leu Val Gly Ala Thr Ala Asp Asp Thr Glu
 850 855 860
 Ala Glu Leu Ile Arg Gly Ile Cys Gly Met Glu Leu Leu Asp Gly Lys
 865 870 875 880
 Gln Thr Leu Ala Ala Phe Val Pro Leu Leu Leu Lys Val Cys Asn Asn
 885 890 895
 Pro Gly Leu Tyr Ser Asn Pro Asp Leu Ser Ala Ala Ala Ser Leu Ala
 900 905 910
 Leu Gly Lys Phe Cys Met Ile Ser Ala Thr Phe Cys Asp Ser Gln His
 915 920 925
 Phe Ala Ile Pro Arg Arg Val Asp Asn Leu Arg
 930 935

<210> 2964

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2964

Met Gly Cys Asp Asn Thr Cys Glu Met Leu Leu Thr Lys Glu Ala Gln
 1 5 10 15
 Leu Glu Thr Gln His Pro Glu Val Phe Phe Val Val Val Val Val Leu
 20 25 30
 Val Phe Phe Trp Arg Gly Gly Gly Ser Cys Ser Asp Ala Gln Ala Gly
 35 40 45
 Met Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro Pro Pro Gly Phe
 50 55 60
 Lys Arg Ser Ser Gly Leu Ser Phe Pro Asn Ser Trp Asn Tyr Arg Arg
 65 70 75 80
 Ala Pro Ala Ser Ser Ala Asn Phe Cys Ile Phe Ser Arg Asp Gly Val
 85 90 95
 Ser Pro Cys Trp Pro Gly
 100

<210> 2965

<211> 806

<212> PRT

<213> Homo sapiens

<400> 2965

Met Ser Ala Ser Pro Asp Asn Leu Ser Thr Gly Gly Arg Leu Gln Asn
 1 5 10 15
 Met Thr Val Asp Glu Cys Leu Gln Ser Arg Asn Thr Val Leu Gln Gly
 20 25 30
 Gln Pro Phe Gly Gly Val Pro Thr Val Leu Cys Leu Asn Ile Ala Leu
 35 40 45
 Trp Val Leu Val Leu Val Val Tyr Ser Phe Leu Arg Lys Ala Ala Trp
 50 55 60
 Asp Tyr Gly Arg Leu Ala Leu Leu Ile His Asn Asp Ser Leu Thr Ser
 65 70 75 80
 Leu Ile Tyr Gly Glu Gln Ser Glu Lys Thr Ser Pro Ser Glu Thr Ser
 85 90 95

Leu Glu Met Glu Arg Arg Asp Lys Gly Phe Cys Ser Trp Phe Phe Asn
 100 105 110
 Ser Ile Thr Met Lys Asp Glu Asp Leu Ile Asn Lys Cys Gly Asp Asp
 115 120 125
 Ala Arg Ile Tyr Ile Val Phe Gln Tyr His Leu Ile Ile Phe Val Leu
 130 135 140
 Ile Ile Cys Ile Pro Ser Leu Gly Ile Ile Leu Pro Ile Asn Tyr Thr
 145 150 155 160
 Gly Ser Val Leu Asp Trp Ser Ser His Phe Ala Arg Thr Thr Ile Val
 165 170 175
 Asn Val Ser Thr Glu Ser Lys Leu Leu Trp Leu His Ser Leu Leu Ser
 180 185 190
 Phe Phe Tyr Phe Ile Thr Asn Phe Met Phe Met Ala His His Cys Leu
 195 200 205
 Gly Phe Ala Pro Arg Asn Ser Gln Lys Val Thr Arg Thr Leu Met Ile
 210 215 220
 Thr Tyr Val Pro Lys Asp Ile Glu Asp Pro Glu Leu Ile Ile Lys His
 225 230 235 240
 Phe His Glu Ala Tyr Pro Gly Ser Val Val Thr Arg Val His Phe Cys
 245 250 255
 Tyr Asp Val Arg Asn Leu Ile Asp Leu Asp Asp Gln Arg Arg His Ala
 260 265 270
 Met Arg Gly Arg Leu Phe Tyr Thr Ala Lys Ala Lys Lys Thr Gly Lys
 275 280 285
 Val Met Ile Arg Ile His Pro Cys Ala Arg Leu Cys Phe Cys Lys Cys
 290 295 300
 Trp Thr Cys Phe Lys Glu Val Asp Ala Glu Gln Tyr Tyr Ser Glu Leu
 305 310 315 320
 Glu Glu Gln Leu Thr Asp Glu Phe Asn Ala Glu Leu Asn Arg Val Pro
 325 330 335
 Leu Lys Arg Leu Asp Leu Ile Phe Val Thr Phe Gln Asp Ser Arg Met
 340 345 350
 Ala Lys Arg Val Arg Lys Asp Tyr Lys Tyr Val Gln Cys Gly Val Gln
 355 360 365
 Pro Gln Gln Ser Ser Val Thr Thr Ile Val Lys Ser Tyr Tyr Trp Arg
 370 375 380

Val Thr Met Ala Pro His Pro Lys Asp Ile Ile Trp Lys His Leu Ser
 385 390 395 400
 Val Arg Arg Phe Phe Trp Trp Ala Arg Phe Ile Ala Ile Asn Thr Phe
 405 410 415
 Leu Phe Phe Leu Phe Phe Phe Leu Thr Thr Pro Ala Ile Ile Met Asn
 420 425 430
 Thr Ile Asp Met Tyr Asn Val Thr Arg Pro Ile Glu Lys Leu Gln Asn
 435 440 445
 Pro Ile Val Thr Gln Phe Phe Pro Ser Val Met Leu Trp Gly Phe Thr
 450 455 460
 Val Ile Leu Pro Leu Ile Val Tyr Phe Ser Ala Phe Leu Glu Ala His
 465 470 475 480
 Trp Thr Arg Ser Ser Gln Asn Leu Val Met Val His Lys Cys Tyr Ile
 485 490 495
 Phe Leu Val Phe Met Val Val Ile Leu Pro Ser Met Gly Leu Thr Ser
 500 505 510
 Leu Asp Val Phe Leu Arg Trp Leu Phe Asp Ile Tyr Tyr Leu Glu Gln
 515 520 525
 Ala Ser Ile Arg Phe Gln Cys Val Phe Leu Pro Asp Asn Gly Ala Phe
 530 535 540
 Phe Val Asn Tyr Val Ile Thr Ala Ala Leu Leu Gly Thr Gly Met Glu
 545 550 555 560
 Leu Leu Arg Leu Gly Ser Leu Phe Cys Tyr Ser Thr Arg Leu Phe Phe
 565 570 575
 Ser Arg Ser Glu Pro Glu Arg Val Asn Ile Arg Lys Asn Gln Ala Ile
 580 585 590
 Asp Phe Gln Phe Gly Arg Glu Tyr Ala Trp Met Met Asn Val Phe Ser
 595 600 605
 Val Val Met Ala Tyr Ser Ile Thr Cys Pro Ile Ile Val Pro Phe Gly
 610 615 620
 Leu Leu Tyr Leu Cys Met Lys His Leu Thr Asp Arg Tyr Asn Met Tyr
 625 630 635 640
 Tyr Ser Phe Ala Pro Thr Lys Leu Asn Glu Gln Ile His Met Ala Ala
 645 650 655
 Val Ser Gln Ala Ile Phe Ala Pro Leu Leu Gly Leu Phe Trp Met Leu

660 665 670
 Phe Phe Ser Ile Leu Arg Leu Gly Ser Leu His Ala Ile Thr Ile Phe
 675 680 685
 Ser Leu Ser Thr Leu Leu Ile Ala Met Val Ile Ala Phe Val Gly Ile
 690 695 700
 Phe Leu Gly Lys Leu Arg Met Val Ala Asp Tyr Glu Pro Glu Glu Glu
 705 710 715 720
 Glu Ile Gln Thr Val Phe Asp Met Glu Pro Ser Ser Thr Ser Ser Thr
 725 730 735
 Pro Thr Ser Leu Leu Tyr Val Ala Thr Val Leu Gln Glu Pro Glu Leu
 740 745 750
 Asn Leu Thr Pro Ala Ser Ser Pro Ala Arg His Thr Tyr Gly Thr Met
 755 760 765
 Asn Asn Gln Pro Glu Glu Gly Glu Glu Glu Ser Gly Leu Arg Gly Phe
 770 775 780
 Ala Arg Glu Leu Asp Ser Ala Gln Phe Gln Glu Gly Leu Glu Leu Glu
 785 790 795 800
 Gly Gln Asn Gln Tyr His

805

<210> 2966

<211> 150

<212> PRT

<213> Homo sapiens

<400> 2966

Met Trp Pro Cys Gly Thr Arg Arg Gly Thr His Ser Ala Leu Leu Ser
 1 5 10 15
 Ala Glu Ile Cys Glu Ala Arg Met Ser Arg Ala Arg Glu Val Glu Gly
 20 25 30
 Pro Glu Pro Ser Gly Val Leu Val Ala Pro Glu Gln Glu Glu Val
 35 40 45
 Glu Gly Glu Ala Arg Arg Glu Leu Gln Asp Asp Pro Ser Gly Pro Pro
 50 55 60

Ser Ser Ser Gly Leu Cys Ser Glu Ala Ser Gly Pro Tyr Lys Ser Glu
 65 70 75 80
 Gln Glu Gly Ala Gly Ile Trp Gly Trp Ser Gly Met Lys Trp Ala Pro
 85 90 95
 Gly Gly Gln Gln Ser Ser Gln Ala Gln Asp Arg Ala Ala Pro Ser Asn
 100 105 110
 Pro Asp Glu Ser Trp Gln Lys Ala Glu Val Gly Gly Asp Ser Glu Glu
 115 120 125
 Gly Met Gly Leu Gly Val Val Gly Glu Gly Val Ser Pro Ile Ser Gly
 130 135 140
 Leu Asp Arg Cys Thr Trp
 145 150

<210> 2967

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2967

Met Gly Ala Ala Pro Ser Leu Leu Ser Ala Glu Pro Gly Thr Tyr Phe
 1 5 10 15
 Leu Asp Arg Thr Arg Val Leu Leu Pro Arg Ala Gly Arg Gln Leu Arg
 20 25 30
 Val Cys Arg Arg Arg Arg Arg His Ser Ala Ala Ala Arg Arg Val Leu
 35 40 45
 Ser Gly Ala Ala Glu Ala Arg Thr Val Ala Ala Ala Ala Ala Ala
 50 55 60
 Pro Arg Ser Pro Pro Gly Ala Ala Ser Pro Gly Asp Thr Phe Pro Ala
 65 70 75 80
 Ser Met Gly Arg Arg Pro Ala Ala Arg Pro Ser Thr Pro Ala Ala Glu
 85 90 95
 Pro Glu Cys Arg Pro Glu Ala Cys
 100

<210> 2968

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2968

```

Met Gly His Ser Asn Leu Cys Leu Leu Arg Asp Cys Lys His Gly Leu
  1             5             10             15
Gln Trp Ile Arg Glu Ser Ser Ser Val Ile Val Leu Met Ala Lys Asn
          20             25             30
Lys Ala Gln Gly Leu Pro Glu Leu Asn Glu Pro Cys Ser Gly Gln His
          35             40             45
Gly Ala Ser Ala Pro Gln Leu Gly Ser Met Ile Leu Val Phe Asn Tyr
          50             55             60
Thr Leu Leu Ala Val Val Gly Gly Lys His Ser Arg Ala Ser Val Thr
          65             70             75             80
Thr Ile Arg Arg Asn Thr Leu Gly Met Ser Gly Lys Leu Gln Ile Pro
          85             90             95
His Pro Ser Thr Val Pro Ser Ala Ser Ser Asp
          100             105

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<210> 2969

<211> 320

<212> PRT

<213> Homo sapiens

<400> 2969

```

Met Ala Glu Met Ile Ala Thr Glu Arg Glu Tyr Ile Arg Cys Leu Gly
  1             5             10             15
Tyr Val Ile Asp Asn Tyr Phe Pro Glu Met Glu Arg Met Asp Leu Pro
          20             25             30
Gln Gly Leu Arg Gly Lys His His Val Ile Phe Gly Asn Leu Glu Lys
          35             40             45
Leu His Asp Phe His Gln Gln His Phe Leu Arg Glu Leu Glu Arg Cys
          50             55             60

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | His | Cys | Pro | Leu | Ala | Val | Gly | Arg | Ser | Phe | Leu | Arg | His | Glu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Phe | Gly | Met | Tyr | Val | Ile | Tyr | Ser | Lys | Asn | Lys | Pro | Gln | Ser | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Leu | Ser | Ser | His | Gly | Asn | Ala | Phe | Phe | Lys | Asp | Lys | Gln | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Leu | Gly | Asp | Lys | Met | Asp | Leu | Ala | Ser | Tyr | Leu | Leu | Arg | Pro | Val |
| | 115 | | | | | | 120 | | | | 125 | | | | |
| Gln | Arg | Val | Ala | Lys | Tyr | Ala | Leu | Leu | Leu | Gln | Asp | Leu | Leu | Lys | Glu |
| 130 | | | | | | 135 | | | | 140 | | | | | |
| Ala | Ser | Cys | Gly | Leu | Ala | Gln | Gly | Gln | Glu | Leu | Gly | Glu | Leu | Arg | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Glu | Val | Val | Val | Cys | Phe | Gln | Leu | Arg | His | Gly | Asn | Asp | Leu | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Met | Asp | Ala | Ile | Arg | Gly | Cys | Asp | Val | Asn | Leu | Lys | Glu | Gln | Gly |
| | 180 | | | | | | | 185 | | | | | 190 | | |
| Gln | Leu | Arg | Cys | Arg | Asp | Glu | Phe | Ile | Val | Cys | Cys | Gly | Arg | Lys | Lys |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Tyr | Leu | Arg | His | Val | Phe | Leu | Phe | Glu | Asp | Leu | Ile | Leu | Phe | Ser | Lys |
| 210 | | | | | | 215 | | | | | | 220 | | | |
| Thr | Gln | Lys | Val | Glu | Gly | Ser | His | Asp | Val | Tyr | Leu | Tyr | Lys | Gln | Ser |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Phe | Lys | Thr | Ala | Glu | Ile | Gly | Met | Thr | Glu | Asn | Val | Gly | Asp | Ser | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Arg | Phe | Glu | Ile | Trp | Phe | Arg | Arg | Arg | Arg | Lys | Ser | Gln | Asp | Thr |
| | 260 | | | | | | | 265 | | | | | 270 | | |
| Tyr | Ile | Leu | Gln | Ala | Ser | Ser | Ala | Glu | Val | Lys | Ser | Ala | Trp | Thr | Asp |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Val | Ile | Gly | Arg | Ile | Leu | Trp | Arg | Gln | Ala | Leu | Lys | Ser | Arg | Gly | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Gly | Thr | Pro | Pro | Arg | Gln | Arg | Asp | Leu | Gly | Ser | His | Arg | His | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |

<210> 2970

 $\langle 211 \rangle$ 201

<212> PRT

<213> Homo sapiens

<400> 2970

```

Met Ser Thr Leu Ser Gly Arg Pro Phe Ser Ser Leu Leu Leu Glu Gln
  1             5             10             15
Gly Asp His Arg Gly Ala Thr Trp Leu Gly Arg Gly Gly Gly Ala Gly
          20             25             30
Pro Gly Gln Ser Gly Pro Gly His Gly Gln Gly Thr Ala Thr Pro Gly
      35             40             45
Pro Gly Gln Val Arg Ala Ala Gln Ala Arg Ala Arg Arg Gly Gly Gly
      50             55             60
Ala Arg Glu Arg Pro Ala Glu Gly Ala Arg Glu Pro Gly Ala Ala Arg
      65             70             75             80
Arg Gly Ala Arg Ala Gly Pro Gly Ala His Leu Arg Ala Ala Arg Thr
          85             90             95
Leu Arg Ala Arg Ala Gln Thr Pro Gln Leu Arg Arg Glu Ala Ala Cys
          100             105             110
Ala Gly Ser Phe Phe Pro Lys Cys Arg Gln Ser Pro Arg Ser His Gly
          115             120             125
Gln Pro Phe Arg Gln Leu Gln Ser His Trp Gln Ala Pro Arg Gln Gly
          130             135             140
Trp Pro Ala Gln Glu Gly Gly Gly Arg Arg Pro Ser Arg Arg Glu Glu
          145             150             155             160
Ala Ala Ala Leu Ala Gly Gly Gly Lys Arg Thr Ala Pro Gly Leu Arg
          165             170             175
Gly Arg Gly Gly Arg Ala Ala Ala Gly Gln Gly Gly Asp Arg His Pro
          180             185             190
Asp Arg Trp Arg Arg Gln Arg Ser Lys
          195             200

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<210> 2971

<211> 164

<212> PRT

<213> Homo sapiens

<400> 2971

Met Gln Ala Pro Arg Ala Ala Pro Ala Ala Pro Leu Ser Tyr Asp Arg
 1 5 10 15
 Arg Pro Arg Asp Ser Gly Arg Met Trp Val Leu Gly Ile Ala Ala Thr
 20 25 30
 Phe Cys Gly Leu Phe Leu Leu Pro Gly Phe Ala Leu Gln Ile Gln Cys
 35 40 45
 Tyr Gln Cys Glu Glu Phe Gln Leu Asn Asn Asp Cys Ser Ser Pro Glu
 50 55 60
 Phe Ile Val Asn Cys Thr Val Asn Val Gln Asp Met Cys Gln Lys Glu
 65 70 75 80
 Val Met Glu Gln Ser Ala Gly Ile Met Tyr Arg Lys Ser Cys Ala Ser
 85 90 95
 Ser Ala Ala Cys Leu Ile Ala Ser Ala Gly Tyr Gln Ser Phe Cys Ser
 100 105 110
 Pro Gly Lys Leu Asn Ser Val Cys Ile Ser Cys Cys Asn Thr Pro Leu
 115 120 125
 Cys Ser Gly Pro Arg Pro Lys Lys Arg Gly Ser Ser Ala Ser Ala Leu
 130 135 140
 Arg Pro Gly Leu Arg Thr Thr Ile Leu Phe Leu Arg Leu Ala Leu Phe
 145 150 155 160
 Ser Ala His Cys

<210> 2972

<211> 321

<212> PRT

<213> Homo sapiens

<400> 2972

Met Ala Ala Asn Ile Val Ala Lys Arg Lys Ser Leu Ser Ala Thr Val
 1 5 10 15
 Val Val Tyr Val Asn Gly Gly Trp Ser Ser Trp Thr Glu Trp Ser Ala
 20 25 30

Cys Asn Val Arg Cys Gly Arg Gly Trp Gln Lys Arg Ser Arg Thr Cys
 35 40 45
 Thr Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Met Ser
 50 55 60
 Val Gln Lys Ile Thr Cys Thr Ser Leu Cys Pro Val Asp Gly Ser Trp
 65 70 75 80
 Glu Val Trp Ser Glu Trp Ser Val Cys Ser Pro Glu Cys Glu His Leu
 85 90 95
 Arg Ile Arg Glu Cys Thr Ala Pro Pro Arg Asn Gly Gly Lys Phe
 100 105 110
 Cys Glu Gly Leu Ser Gln Glu Ser Glu Asn Cys Thr Asp Gly Leu Cys
 115 120 125
 Ile Leu Gly Ile Glu Asn Ala Ser Asp Ile Ala Leu Tyr Ser Gly Leu
 130 135 140
 Gly Ala Ala Val Val Ala Val Ala Val Leu Val Ile Gly Val Thr Leu
 145 150 155 160
 Tyr Arg Arg Ser Gln Ser Asp Tyr Gly Val Asp Val Ile Asp Ser Ser
 165 170 175
 Ala Leu Thr Gly Gly Phe Gln Thr Phe Asn Phe Lys Thr Val Arg Gln
 180 185 190
 Gly Asn Ser Leu Leu Leu Asn Ser Ala Met Gln Pro Asp Leu Thr Val
 195 200 205
 Ser Arg Thr Tyr Ser Gly Pro Ile Cys Leu Gln Asp Pro Leu Asp Lys
 210 215 220
 Glu Leu Met Thr Glu Ser Ser Leu Phe Asn Pro Leu Ser Asp Ile Lys
 225 230 235 240
 Val Lys Val Gln Ser Ser Phe Met Val Ser Leu Gly Val Ser Glu Arg
 245 250 255
 Ala Glu Tyr His Gly Lys Asn His Ser Arg Thr Phe Pro His Gly Asn
 260 265 270
 Asn His Ser Phe Ser Thr Met His Pro Arg Asn Lys Met Pro Tyr Ile
 275 280 285
 Gln Asn Leu Ser Ser Leu Pro Thr Arg Thr Glu Leu Arg Thr Thr Gly
 290 295 300
 Val Phe Gly His Leu Gly Gly Arg Leu Val Met Pro Asn Thr Gly Gly
 305 310 315 320

Trp

<210> 2973

<211> 341

<212> PRT

<213> Homo sapiens

<400> 2973

```

Met Pro Gln Pro Arg Gly Gly Gln Pro Ala Trp Gln Leu Thr Pro Ser
 1              5              10              15
Pro Pro Pro Ser Ser Arg Ile Met Ser Thr His Val Ala Gly Leu Gly
      20              25              30
Leu Asp Lys Met Lys Leu Gly Asn Pro Gln Ser Phe Leu Asp Gln Glu
      35              40              45
Glu Ala Asp Asp Gln Gln Leu Leu Glu Pro Glu Ala Trp Lys Thr Tyr
      50              55              60
Thr Glu Arg Arg Asn Ala Leu Arg Glu Phe Leu Thr Ser Asp Leu Ser
      65              70              75              80
Pro His Leu Leu Lys Arg His His Ala Arg Met Gln Leu Leu Arg Lys
      85              90              95
Cys Ser Tyr Tyr Ile Glu Val Leu Pro Lys His Leu Ala Leu Gly Asp
      100              105              110
Gln Asn Pro Leu Val Leu Pro Ser Ala Leu Phe Gln Leu Ile Asp Pro
      115              120              125
Trp Lys Phe Gln Arg Met Lys Lys Val Gly Thr Ala Gln Thr Lys Ile
      130              135              140
Gln Leu Leu Leu Leu Gly Asp Leu Leu Glu Gln Leu Asp His Gly Arg
      145              150              155              160
Ala Glu Leu Asp Ala Leu Leu Arg Ser Pro Asp Pro Arg Pro Phe Leu
      165              170              175
Ala Asp Trp Ala Leu Val Glu Arg Arg Leu Ala Asp Val Ser Ala Val
      180              185              190
Met Asp Ser Phe Leu Thr Met Met Val Pro Gly Arg Leu His Val Lys
      195              200              205

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His Arg Leu Val Ser Asp Val Ser Ala Thr Lys Ile Pro His Ile Trp
 210 215 220
 Leu Met Leu Ser Thr Lys Met Pro Val Val Phe Asp Arg Lys Ala Ser
 225 230 235 240
 Ala Ala His Gln Asp Trp Ala Arg Leu Arg Trp Phe Val Thr Ile Gln
 245 250 255
 Pro Ala Thr Ser Glu Gln Tyr Glu Leu Arg Phe Arg Leu Leu Asp Pro
 260 265 270
 Arg Thr Gln Gln Glu Cys Ala Gln Cys Gly Val Ile Pro Val Ala Ala
 275 280 285
 Cys Thr Phe Asp Val Arg Asn Leu Leu Pro Asn Arg Ser Tyr Lys Phe
 290 295 300
 Thr Ile Lys Arg Ala Glu Thr Ser Thr Leu Val Tyr Glu Pro Trp Arg
 305 310 315 320
 Asp Ser Leu Thr Leu His Thr Lys Pro Glu Pro Leu Glu Gly Pro Ala
 325 330 335
 Leu Ser His Ser Val
 340

<210> 2974

<211> 822

<212> PRT

<213> Homo sapiens

<400> 2974

Met Asn Trp Asn Lys Gly Gly Pro Gly Thr Lys Arg Gly Phe Gly Phe
 1 5 10 15
 Gly Gly Phe Ala Ile Ser Ala Gly Lys Lys Glu Glu Pro Lys Leu Pro
 20 25 30
 Gln Gln Ser His Ser Ala Phe Gly Ala Thr Ser Ser Ser Ser Gly Phe
 35 40 45
 Gly Lys Ser Ala Pro Pro Gln Leu Pro Ser Phe Tyr Lys Ile Gly Ser
 50 55 60
 Lys Arg Ala Asn Phe Asp Glu Glu Asn Ala Tyr Phe Glu Asn Glu Glu
 65 70 75 80

Glu Asp Ser Ser Asn Val Asp Leu Pro Tyr Ile Pro Ala Glu Asn Ser
 85 90 95
 Pro Thr Arg Gln Gln Phe His Ser Lys Pro Val Asp Ser Asp Ser Asp
 100 105 110
 Asp Asp Pro Leu Glu Ala Phe Met Ala Glu Val Glu Asp Gln Ala Ala
 115 120 125
 Arg Asp Met Lys Arg Leu Glu Glu Lys Asp Lys Glu Arg Lys Asn Val
 130 135 140
 Lys Gly Ile Arg Asp Asp Ile Glu Glu Glu Asp Asp Gln Glu Ala Tyr
 145 150 155 160
 Phe Arg Tyr Met Ala Glu Asn Pro Thr Ala Gly Val Val Gln Glu Glu
 165 170 175
 Glu Glu Asp Asn Leu Glu Tyr Asp Ser Asp Gly Asn Pro Ile Ala Pro
 180 185 190
 Thr Lys Lys Ile Ile Asp Pro Leu Pro Pro Ile Asp His Ser Glu Ile
 195 200 205
 Asp Tyr Pro Pro Phe Glu Lys Asn Phe Tyr Asn Glu His Glu Glu Ile
 210 215 220
 Thr Asn Leu Thr Pro Gln Gln Leu Ile Asp Leu Arg His Lys Leu Asn
 225 230 235 240
 Leu Arg Val Ser Gly Ala Ala Pro Pro Arg Pro Gly Ser Ser Phe Ala
 245 250 255
 His Phe Gly Phe Asp Glu Gln Leu Met His Gln Ile Arg Lys Ser Glu
 260 265 270
 Tyr Thr Gln Pro Thr Pro Ile Gln Cys Gln Gly Val Pro Val Ala Leu
 275 280 285
 Ser Gly Arg Asp Met Ile Gly Ile Ala Lys Thr Gly Ser Gly Lys Thr
 290 295 300
 Ala Ala Phe Ile Trp Pro Met Leu Ile His Ile Met Asp Gln Lys Glu
 305 310 315 320
 Leu Glu Pro Gly Asp Gly Pro Ile Ala Val Ile Val Cys Pro Thr Arg
 325 330 335
 Glu Leu Cys Gln Gln Ile His Ala Glu Cys Lys Arg Phe Gly Lys Ala
 340 345 350
 Tyr Asn Leu Arg Ser Val Ala Val Tyr Gly Gly Gly Ser Met Trp Glu
 355 360 365

Gln Ala Lys Ala Leu Gln Glu Gly Ala Glu Ile Val Val Cys Thr Pro
 370 375 380
 Gly Arg Leu Ile Asp His Val Lys Lys Lys Ala Thr Asn Leu Gln Arg
 385 390 395 400
 Val Ser Tyr Leu Val Phe Asp Glu Ala Asp Arg Met Phe Asp Met Gly
 405 410 415
 Phe Glu Tyr Gln Val Arg Ser Ile Ala Ser His Val Arg Pro Asp Arg
 420 425 430
 Gln Thr Leu Leu Phe Ser Ala Thr Phe Arg Lys Lys Ile Glu Lys Leu
 435 440 445
 Ala Arg Asp Ile Leu Ile Asp Pro Ile Arg Val Val Gln Gly Asp Ile
 450 455 460
 Gly Glu Ala Asn Glu Asp Val Thr Gln Ile Val Glu Ile Leu His Ser
 465 470 475 480
 Gly Pro Ser Lys Trp Asn Trp Leu Thr Arg Arg Leu Val Glu Phe Thr
 485 490 495
 Ser Ser Gly Ser Val Leu Leu Phe Val Thr Lys Lys Ala Asn Ala Glu
 500 505 510
 Glu Leu Ala Asn Asn Leu Lys Gln Glu Gly His Asn Leu Gly Leu Leu
 515 520 525
 His Gly Asp Met Asp Gln Ser Glu Arg Asn Lys Val Ile Ser Asp Phe
 530 535 540
 Lys Lys Lys Asp Ile Pro Val Leu Val Ala Thr Asp Val Ala Ala Arg
 545 550 555 560
 Gly Leu Asp Ile Pro Ser Ile Lys Thr Val Ile Asn Tyr Asp Val Ala
 565 570 575
 Arg Asp Ile Asp Thr His Thr His Arg Ile Gly Arg Thr Gly Arg Ala
 580 585 590
 Gly Glu Lys Gly Val Ala Tyr Thr Leu Leu Thr Pro Lys Asp Ser Asn
 595 600 605
 Phe Ala Gly Asp Leu Val Arg Asn Leu Glu Gly Ala Asn Gln His Val
 610 615 620
 Ser Lys Glu Leu Leu Asp Leu Ala Met Gln Asn Ala Trp Phe Arg Lys
 625 630 635 640
 Ser Arg Phe Lys Gly Gly Lys Gly Lys Lys Leu Asn Ile Gly Gly Gly
 645 650 655

Gly Leu Gly Tyr Arg Glu Arg Pro Gly Leu Gly Ser Glu Asn Met Asp
 660 665 670
 Arg Gly Asn Asn Asn Val Met Ser Asn Tyr Glu Ala Tyr Lys Pro Ser
 675 680 685
 Thr Gly Ala Met Gly Asp Arg Leu Thr Ala Met Lys Ala Ala Phe Gln
 690 695 700
 Pro Gln Tyr Lys Ser His Phe Val Ala Ala Ser Leu Ser Asn Gln Lys
 705 710 715 720
 Ala Gly Ser Ser Ala Ala Gly Ala Ser Gly Trp Thr Ser Ala Gly Ser
 725 730 735
 Leu Asn Ser Val Pro Thr Asn Ser Ala Gln Gln Gly His Asn Ser Pro
 740 745 750
 Asp Ser Pro Val Thr Leu Asn Ile Ser Gly Leu Ser Val Ser Phe Ser
 755 760 765
 Cys Leu Leu Ser Gly Pro Leu Ala Ala Ala Gly Met Cys Val Cys Glu
 770 775 780
 Gly Leu Leu Pro Ile Pro Leu Ala Pro Gly Ala Trp Cys Leu Lys Arg
 785 790 795 800
 Trp Cys Val Pro Cys Gln Ala Thr Leu Lys Asn Ile Tyr Val Gln Gln
 805 810 815
 Gln Tyr Asn Ser Thr Arg
 820

<210> 2975

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2975

Met Ala Leu Gln Leu Arg Trp Phe Lys His Arg Arg Pro Phe Phe Leu
 1 5 10 15
 Leu Leu Ile Ala Gln Leu Cys Val His Trp Pro Pro His Leu Pro Pro
 20 25 30
 Asp Gln Arg Gly Phe Cys Leu Pro Gln His Cys Gln Pro Gly Val Phe
 35 40 45

Leu Asp Ser Ser Pro Gly Pro Pro Ser Ala Pro Leu Pro Pro Ser Ala
 50 55 60
 Leu Thr Ser Arg Pro Pro Ser Leu Leu Leu Gly Asn Leu Ala Trp Val
 65 70 75 80
 Gly Leu Pro Ser Gln Pro Ser Arg Leu Phe Phe Leu Ser Leu Ala Ala
 85 90 95
 Cys Leu Ala His His Cys Gly Gln Val Ser Leu Ser Glu Asn Thr Ile
 100 105 110
 Ser Ser His His Gly Pro Gly Tyr Lys Ala Val Ser His Leu Pro Ile
 115 120 125
 Thr Ser Asp Gln Ile Arg Thr Leu Arg Leu Trp Ile Glu Ala Asp Ala
 130 135 140
 Thr Val Pro Gly Lys Pro His Cys Pro Pro Ile Pro Ala Leu Ala Ser
 145 150 155 160
 Val Pro Val Arg Ser Cys Thr Met Leu Leu Ser Ala Ile Leu Pro Ser
 165 170 175
 Pro Ala Leu Pro Ala Cys Trp Ser Cys Ile Ala Leu His Leu Thr Asp
 180 185 190
 Ser Tyr Ser Thr Ala Leu Ala Ser Pro Lys His Thr Trp Pro Ser
 195 200 205

<210> 2976

<211> 124

<212> PRT

<213> Homo sapiens

<400> 2976

Met Leu Pro Arg Leu Glu Cys Ser Gly Val Ile Ser Ala His Cys Ser
 1 5 10 15
 Leu His Leu Leu Gly Ser Ser Ser Pro Pro Thr Ser Thr Ser Leu Arg
 20 25 30
 Ala Glu Thr Thr Gly Val Ser His His Ala Trp Leu Ile Phe Arg Asp
 35 40 45
 Arg Val Ser Pro Ser Cys Pro Gly Trp Ser Gln Thr Pro Gly Leu Lys
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Ser | Cys | Leu | Ser | Leu | Pro | Glu | Tyr | Trp | Asp | Tyr | Arg | Cys | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Leu | Pro | Glu | Lys | Arg | Phe | Leu | Arg | Gln | Gly | Arg | Ser | Tyr | Ile | Ile |
| | | | | 85 | | | | | 90 | | | | | | 95 |
| Phe | Lys | Phe | Phe | Leu | Met | Met | Ser | Phe | Leu | Ala | Val | His | Ser | Gln | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Thr | His | His | Thr | Gln | Glu | Thr | Val | Val | Leu | Met | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 2977

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2977

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| Met | Tyr | Asn | Pro | Trp | Gln | Val | Gly | Ala | Ser | Leu | Ala | Pro | Ala | Arg | Ala | | | |
| | | | | 5 | | | 10 | | | | | | 15 | | | | | |
| Gly | Pro | Arg | Pro | Phe | Pro | Thr | Pro | Arg | Ala | Arg | Pro | Pro | Asp | Cys | Ser | | | |
| | | | | | | | 20 | | | 25 | | | | 30 | | | | |
| Gly | Gly | His | Ala | Pro | Ser | Gly | Phe | Pro | Ala | Leu | Gly | Leu | Arg | Thr | Ala | | | |
| | | | | | | | | 35 | | | 40 | | | | 45 | | | |
| Gln | Arg | Pro | Arg | Pro | Phe | Ser | Ser | Ser | Pro | Arg | Ser | Ala | Ser | Gly | Arg | | | |
| 50 | | | | | | 55 | | | | | | 60 | | | | | | |
| Leu | Arg | Gly | Pro | Arg | Pro | Val | Ala | Arg | Gly | Pro | Ala | His | Ser | Ser | Ser | | | |
| 65 | | 70 | | | | | | | | | 75 | | | | 80 | | | |
| Pro | Thr | Gly | Leu | Pro | Ala | Tyr | Leu | Pro | Pro | Ala | Ala | Ala | Leu | Asp | Ser | | | |
| 85 | | | | | | | 90 | | | | | | | | 95 | | | |
| Gln | Thr | Ser | Ala | Pro | Thr | Val | Ser | Pro | Val | Thr | Arg | Pro | Arg | Val | Val | | | |
| 100 | | | | | | | | 105 | | | | 110 | | | | | | |
| Ala | Arg | Gly | Lys | Thr | Pro | Arg | Val | Ser | Leu | Ala | Gly | Leu | Glu | Thr | Leu | | | |
| 115 | | | | | 120 | | | | | | | 125 | | | | | | |
| Ser | Ser | Leu | Leu | His | Gln | Gln | Gln | Leu | Phe | Asp | | | | | | | | |
| 130 | | | | 135 | | | | | | | | | | | | | | |

<210> 2978

<211> 128

<212> PRT

<213> Homo sapiens

<400> 2978

```

Met Gly Thr Ala Ala Gly Ala Glu Gly Pro Cys Pro Trp Gly Ala Arg
  1             5             10             15
Arg Ala Gly Arg Gln Gln Ala Arg Ala Ser Leu Thr Glu Arg Thr Pro
      20             25             30
Ala Glu Gly Leu Ala Leu Arg Gly Ala Gly Gln Gly His Thr Gly Val
      35             40             45
Leu Pro Leu Pro Gly Gln Arg Asp Gly Val Val Gly Arg Trp Gln Gln
      50             55             60
Ala Ser Phe Arg Arg Asp Ala Gln Glu Ala Thr Leu Asn Glu Pro His
      65             70             75             80
Leu Leu Arg Val Arg Phe Asp Leu Phe Leu Arg Pro Arg Arg Ile Asn
      85             90             95
Ser Asp Leu Ile Gly Phe Gly Ala Gly Arg Arg Gly Val Arg Leu Ala
      100            105            110
Ser Pro Leu Pro Ala Leu Leu Pro Cys Thr Asp Val Ile Cys Val Ser
      115            120            125

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<210> 2979

<211> 235

<212> PRT

<213> Homo sapiens

<400> 2979

```

Met Val Lys Asp Asp Asp Pro Ser Trp Lys Pro Thr Phe Ile Val Lys
  1             5             10             15
Pro Asp Gly Gly Cys Gln Gly Asp Gly Ile Tyr Leu Ile Lys Asp Pro
      20             25             30
Ser Asp Ile Arg Leu Ala Gly Thr Leu Gln Ser Arg Pro Ala Val Val
      35             40             45

```

Gln Glu Tyr Ile Cys Lys Pro Leu Leu Ile Asp Lys Leu Lys Phe Asp
 50 55 60
 Ile Arg Leu Tyr Val Leu Leu Lys Ser Leu Asp Pro Leu Glu Ile Tyr
 65 70 75 80
 Ile Ala Lys Asp Gly Leu Ser Arg Phe Cys Thr Glu Pro Tyr Gln Glu
 85 90 95
 Pro Thr Pro Lys Asn Leu His Arg Ile Phe Met His Leu Thr Asn Tyr
 100 105 110
 Ser Leu Asn Ile His Ser Gly Asn Phe Ile His Ser Asp Ser Ala Ser
 115 120 125
 Thr Gly Ser Lys Arg Thr Phe Ser Ser Ile Leu Cys Arg Leu Ser Ser
 130 135 140
 Lys Gly Val Asp Ile Lys Lys Val Trp Ser Asp Ile Ile Ser Val Val
 145 150 155 160
 Ile Lys Thr Val Ile Ala Leu Thr Pro Glu Leu Lys Val Phe Tyr Gln
 165 170 175
 Ser Asp Ile Pro Thr Gly Arg Pro Gly Pro Thr Cys Phe Gln Ile Leu
 180 185 190
 Gly Phe Asp Ile Leu Leu Met Lys Asn Leu Lys Pro Ile Leu Leu Glu
 195 200 205
 Val Asn Ala Asn Pro Ser Met Arg Ile Glu His Glu His Glu Gly Cys
 210 215 220
 Leu Lys Met Ser Pro Ala Ser Leu Met Lys Lys
 225 230 235

<210> 2980

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2980

Met Gly Ser Glu Gln Tyr Asp Ala Asp Ala Glu Glu Thr Gly Leu Asp
 1 5 10 15
 Gly Ser Trp Gly Phe Pro Gly Lys Pro Phe Thr Thr Ile His Met Gly
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | His | Ser | Gly | Pro | Thr | Leu | Thr | Pro | Arg | Thr | Gly | Ser | Ser | Asp |
| 35 | | | | | | 40 | | | | | | 45 | | | |
| Val | Ala | Asp | Gln | Leu | Trp | Ala | Gln | Glu | Arg | Lys | His | Pro | Thr | Arg | Leu |
| 50 | | | | | | 55 | | | | | | 60 | | | |
| Gly | Trp | Gln | Glu | Phe | Gly | Leu | Ser | Thr | Asp | Pro | Ile | Lys | Leu | Pro | Cys |
| 65 | | | | | | 70 | | | | | | 75 | | | |
| Asn | Ser | Glu | Asn | Val | Thr | Trp | Leu | Lys | Pro | Arg | Pro | Ile | Ser | Arg | Cys |
| | | | 85 | | | | | | 90 | | | | | | |
| Leu | Ala | Arg | Pro | Ser | Ser | Pro | Leu | Val | Pro | Ser | Cys | Ser | Pro | Lys | Thr |
| 100 | | | | | | 105 | | | | | | 110 | | | |
| Ala | Gly | Thr | Leu | Arg | Gln | Pro | Thr | Leu | Glu | Gln | Ala | Gln | Gln | Val | Val |
| 115 | | | | | | 120 | | | | | | 125 | | | |
| Ile | Arg | Ala | His | Gln | Glu | Gln | Leu | Asp | Glu | Met | Ala | Glu | Leu | Gly | Phe |
| 130 | | | | | | 135 | | | | | | 140 | | | |
| Lys | Glu | Glu | Thr | Leu | Met | Ser | Gln | Leu | Ala | Ser | Asn | Asp | Phe | Glu | Asp |
| 145 | | | | | | 150 | | | | | | 155 | | | |
| Phe | Val | Thr | Gln | Leu | Asp | Glu | Ile | Met | Val | Leu | Lys | Ser | Lys | Cys | Ile |
| | | | 165 | | | | | | 170 | | | | | | |
| Gln | Ser | Leu | Arg | Ser | Gln | Leu | Gln | Leu | Tyr | Leu | Thr | Cys | His | Gly | Pro |
| 180 | | | | | | 185 | | | | | | 190 | | | |
| Thr | Ala | Ala | Pro | Glu | Gly | Thr | Val | Pro | Ser | | | | | | |
| 195 | | | | | | 200 | | | | | | | | | |

<210> 2981

<211> 1420

<212> PRT

<213> Homo sapiens

<400> 2981

Met Arg Leu Val Ala Ser Glu Leu His Thr Ser Leu Tyr Ser Ser Met
1 5 10 15
Val Gly Ala Asp Arg Leu Gly Thr Leu Ala Thr Ala Leu Leu Ala Phe
20 25 30
Pro Ser Val Gly Pro Thr Phe Pro Thr Tyr Tyr Ala His Ala Asp Thr
35 40 45

Leu Cys Ser Val Lys Ser Glu Glu Val Leu Arg Gly Leu Gly Lys Leu
 50 55 60
 Ile Leu Lys Arg Ser Gly Gly Lys Glu Leu Glu Gly Lys Gly Gln Lys
 65 70 75 80
 Ala Cys Pro Thr Arg Glu Gln Leu Leu Met Asn Ala Leu Leu Tyr Leu
 85 90 95
 Arg Ser His Val Leu Cys Lys Gly Glu Leu Asp Gln Arg Ala Leu Gln
 100 105 110
 Leu Phe Arg His Val Cys Gln Glu Ile Ile Ser Glu Trp Asp Glu Gln
 115 120 125
 Glu Arg Ile Ala Gln Glu Lys Ala Glu Gln Glu Ser Gly Leu Tyr Arg
 130 135 140
 Tyr Arg Ser Arg Asn Ser Arg Thr Ala Leu Ser Glu Glu Glu Glu Glu
 145 150 155 160
 Glu Arg Glu Phe Arg Lys Gln Phe Pro Leu His Glu Lys Asp Phe Ala
 165 170 175
 Asp Ile Leu Val Gln Pro Thr Leu Glu Glu Asn Lys Gly Thr Ser Asp
 180 185 190
 Gly Gln Glu Glu Glu Ala Gly Thr Asn Pro Ala Leu Leu Ser Gln Asn
 195 200 205
 Ser Met Gln Ala Val Met Leu Ile His Gln Gln Leu Cys Leu Asn Phe
 210 215 220
 Ala Arg Ser Leu Trp Tyr Gln Gln Thr Leu Pro Pro His Glu Ala Lys
 225 230 235 240
 His Tyr Leu Ser Leu Phe Leu Ser Cys Tyr Gln Thr Gly Ala Ser Leu
 245 250 255
 Val Thr His Phe Tyr Pro Leu Met Gly Val Glu Leu Asn Asp Arg Leu
 260 265 270
 Leu Gly Ser Gln Leu Leu Ala Cys Thr Leu Ser His Asn Thr Leu Phe
 275 280 285
 Gly Glu Ala Pro Ser Asp Leu Met Val Lys Pro Asp Gly Pro Tyr Asp
 290 295 300
 Phe Tyr Gln His Pro Asn Val Pro Glu Ala Arg Gln Cys Gln Pro Val
 305 310 315 320
 Leu Gln Gly Phe Ser Glu Ala Val Ser His Leu Leu Gln Asp Trp Pro
 325 330 335

Glu His Pro Ala Leu Glu Gln Leu Leu Val Val Met Asp Arg Ile Arg
 340 345 350
 Ser Phe Pro Leu Ser Ser Pro Ile Ser Lys Phe Leu Asn Gly Leu Glu
 355 360 365
 Ile Leu Leu Ala Lys Ala Gln Asp Trp Glu Glu Asn Ala Ser Arg Ala
 370 375 380
 Leu Ser Leu Arg Lys His Leu Asp Leu Ile Ser Gln Met Ile Ile Arg
 385 390 395 400
 Trp Arg Lys Leu Glu Leu Asn Cys Trp Ser Met Ser Leu Asp Asn Thr
 405 410 415

 Met Lys Arg His Thr Glu Lys Ser Thr Lys His Trp Phe Ser Thr Tyr
 420 425 430
 Gln Met Leu Glu Lys His Met Gln Glu Gln Thr Glu Glu Gln Glu Asp
 435 440 445
 Asp Lys Gln Met Thr Leu Met Leu Leu Val Ser Thr Leu Gln Ala Phe
 450 455 460
 Ile Glu Gly Ser Ser Leu Gly Glu Phe His Val Arg Leu Gln Met Leu
 465 470 475 480
 Leu Val Phe His Cys His Val Leu Leu Met Pro Gln Val Glu Gly Lys
 485 490 495
 Asp Ser Leu Cys Ser Val Leu Trp Asn Leu Tyr His Tyr Tyr Lys Gln
 500 505 510
 Phe Phe Asp Arg Val Gln Ala Lys Ile Val Glu Leu Arg Ser Pro Leu
 515 520 525
 Glu Lys Glu Leu Lys Glu Phe Val Lys Ile Ser Lys Trp Asn Asp Val
 530 535 540
 Ser Phe Trp Ser Ile Lys Gln Ser Val Glu Lys Thr His Arg Thr Leu
 545 550 555 560
 Phe Lys Phe Met Lys Lys Phe Glu Ala Val Leu Ser Glu Pro Cys Arg
 565 570 575
 Ser Ser Leu Val Glu Ser Asp Lys Glu Glu Gln Pro Asp Phe Leu Pro
 580 585 590
 Arg Pro Thr Asp Gly Ala Ala Ser Glu Leu Ser Ser Ile Gln Asn Leu
 595 600 605
 Asn Arg Ala Leu Arg Glu Thr Leu Leu Ala Gln Pro Ala Ala Gly Gln

| | | | |
|---|-----|-----|-----|
| 610 | 615 | 620 | |
| Ala Thr Ile Pro Glu Trp Cys Gln Gly Ser Ala Pro Ser Gly Leu Glu | | | |
| 625 | 630 | 635 | 640 |
| Gly Glu Leu Leu Arg Arg Leu Pro Lys Leu Arg Lys Arg Met Arg Lys | | | |
| | 645 | 650 | 655 |
| Met Cys Leu Thr Phe Met Lys Glu Ser Pro Leu Pro Arg Leu Val Glu | | | |
| | 660 | 665 | 670 |
| Gly Leu Asp Gln Phe Thr Gly Glu Val Ile Ser Ser Val Ser Glu Leu | | | |
| | 675 | 680 | 685 |
| Gln Ser Leu Lys Val Glu Pro Ser Ala Glu Lys Glu Lys Gln Arg Ser | | | |
| 690 | 695 | 700 | |
| Glu Ala Lys His Ile Leu Met Gln Lys Gln Arg Ala Leu Ser Asp Leu | | | |
| 705 | 710 | 715 | 720 |
| Phe Lys His Leu Ala Lys Ile Gly Leu Ser Tyr Arg Lys Gly Leu Ala | | | |
| | 725 | 730 | 735 |
| Trp Ala Arg Ser Lys Asn Pro Gln Glu Met Leu His Leu His Pro Leu | | | |
| | 740 | 745 | 750 |
| Asp Leu Gln Ser Ala Leu Ser Ile Val Ser Ser Thr Gln Glu Ala Asp | | | |
| | 755 | 760 | 765 |
| Ser Arg Leu Leu Thr Glu Ile Ser Ser Ser Trp Asp Gly Cys Gln Lys | | | |
| 770 | 775 | 780 | |
| Tyr Phe Tyr Arg Ser Leu Ala Arg His Ala Arg Leu Asn Ala Ala Leu | | | |
| 785 | 790 | 795 | 800 |
| Ala Thr Pro Ala Lys Glu Met Gly Met Gly Asn Val Glu Arg Cys Arg | | | |
| | 805 | 810 | 815 |
| Gly Phe Ser Ala His Leu Met Lys Met Leu Val Arg Gln Arg Arg Ser | | | |
| | 820 | 825 | 830 |
| Leu Thr Thr Leu Ser Glu Gln Trp Ile Ile Leu Arg Asn Leu Leu Ser | | | |
| | 835 | 840 | 845 |
| Cys Val Gln Glu Ile His Ser Arg Leu Met Gly Pro Gln Ala Tyr Pro | | | |
| 850 | 855 | 860 | |
| Val Ala Phe Pro Pro Gln Asp Gly Val Gln Gln Trp Thr Glu Arg Leu | | | |
| 865 | 870 | 875 | 880 |
| Gln His Leu Ala Met Gln Cys Gln Ile Leu Leu Glu Gln Leu Ser Trp | | | |
| | 885 | 890 | 895 |
| Leu Leu Gln Cys Cys Pro Ser Val Gly Pro Ala Pro Gly His Gly Asn | | | |

| | | |
|---|------|------|
| 900 | 905 | 910 |
| Val Gln Val Leu Gly Gln Pro Pro Gly Pro Cys Leu Glu Gly Pro Glu | | |
| 915 | 920 | 925 |
| Leu Ser Lys Gly Gln Leu Cys Gly Val Val Leu Asp Leu Ile Pro Ser | | |
| 930 | 935 | 940 |
| Asn Leu Ser Tyr Pro Ser Pro Ile Pro Gly Ser Gln Leu Pro Ser Gly | | |
| 945 | 950 | 955 |
| Cys Arg Met Arg Lys Gln Asp His Leu Trp Gln Gln Ser Thr Thr Arg | | |
| 965 | 970 | 975 |
| Leu Thr Glu Met Leu Lys Thr Ile Lys Thr Val Lys Ala Asp Val Asp | | |
| 980 | 985 | 990 |
| Lys Ile Arg Gln Gln Ser Cys Glu Thr Leu Phe His Ser Trp Lys Asp | | |
| 995 | 1000 | 1005 |
| Phe Glu Val Cys Ser Ser Ala Leu Ser Cys Leu Ser Gln Val Ser Val | | |
| 1010 | 1015 | 1020 |
| His Leu Gln Gly Leu Glu Ser Leu Phe Ile Leu Pro Gly Met Glu Val | | |
| 1025 | 1030 | 1035 |
| Glu Gln Arg Asp Ser Gln Met Ala Leu Val Glu Ser Leu Glu Tyr Val | | |
| 1045 | 1050 | 1055 |
| Arg Gly Glu Ile Ser Lys Ala Met Ala Asp Phe Thr Thr Trp Lys Thr | | |
| 1060 | 1065 | 1070 |
| His Leu Leu Thr Ser Asp Ser Gln Gly Gly Asn Gln Met Leu Asp Glu | | |
| 1075 | 1080 | 1085 |
| Gly Phe Val Glu Asp Phe Ser Glu Gln Met Glu Ile Ala Ile Arg Ala | | |
| 1090 | 1095 | 1100 |
| Ile Leu Cys Ala Ile Gln Asn Leu Glu Glu Arg Lys Asn Glu Lys Ala | | |
| 1105 | 1110 | 1115 |
| Glu Glu Asn Thr Asp Gln Ala Ser Pro Gln Glu Asp Tyr Ala Gly Phe | | |
| 1125 | 1130 | 1135 |
| Glu Arg Leu Gln Ser Gly His Leu Thr Lys Leu Leu Glu Asp Asp Phe | | |
| 1140 | 1145 | 1150 |
| Trp Ala Asp Val Ser Thr Leu His Val Gln Lys Ile Ile Ser Ala Ile | | |
| 1155 | 1160 | 1165 |
| Ser Glu Leu Leu Glu Arg Leu Lys Ser Tyr Gly Glu Asp Gly Thr Ala | | |
| 1170 | 1175 | 1180 |
| Ala Lys His Leu Phe Phe Ser Gln Ser Cys Ser Leu Leu Val Arg Leu | | |

| | | | |
|---|------|------|------|
| 1185 | 1190 | 1195 | 1200 |
| Val Pro Val Leu Ser Ser Tyr Ser Asp Leu Val Leu Phe Phe Leu Thr | | | |
| 1205 | 1210 | 1215 | |
| Met Ser Leu Ala Thr His Arg Ser Thr Ala Lys Leu Leu Ser Val Leu | | | |
| 1220 | 1225 | 1230 | |
| Ala Gln Val Phe Thr Glu Leu Ala Gln Lys Gly Phe Cys Leu Pro Lys | | | |
| 1235 | 1240 | 1245 | |
| Glu Phe Met Glu Asp Ser Ala Gly Glu Gly Ala Thr Glu Phe His Asp | | | |
| 1250 | 1255 | 1260 | |
| Tyr Glu Gly Gly Gly Ile Gly Glu Gly Glu Gly Met Lys Asp Val Ser | | | |
| 1265 | 1270 | 1275 | 1280 |
| Asp Gln Ile Gly Asn Glu Glu Gln Val Glu Asp Thr Phe Gln Lys Gly | | | |
| 1285 | 1290 | 1295 | |
| Gln Glu Lys Asp Lys Glu Asp Pro Asp Ser Lys Ser Asp Ile Lys Gly | | | |
| 1300 | 1305 | 1310 | |
| Glu Asp Asn Ala Ile Glu Met Ser Glu Asp Phe Asp Gly Lys Met His | | | |
| 1315 | 1320 | 1325 | |
| Asp Gly Glu Leu Glu Glu Gln Glu Asp Asp Glu Lys Ser Asp Ser | | | |
| 1330 | 1335 | 1340 | |
| Glu Gly Gly Asp Leu Asp Lys His Met Gly Asp Leu Asn Gly Glu Glu | | | |
| 1345 | 1350 | 1355 | 1360 |
| Ala Asp Lys Leu Asp Glu Arg Leu Trp Gly Asp Asp Asp Glu Glu Glu | | | |
| 1365 | 1370 | 1375 | |
| Asp Glu Glu Glu Glu Asp Asn Lys Thr Glu Glu Thr Gly Pro Gly Met | | | |
| 1380 | 1385 | 1390 | |
| Asp Glu Glu Asp Ser Glu Leu Val Ala Lys Asp Asp Asn Leu Asp Ser | | | |
| 1395 | 1400 | 1405 | |
| Gly Asn Ser Asn Lys Asp Lys Ser Gln Gln Asp Lys | | | |
| 1410 | 1415 | 1420 | |

<210> 2982

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2982

Met Gly Gly Cys Met Ala Met His Leu Ala Tyr Arg Asn His Gln Asp
 1 5 10 15
 Val Ala Gly Val Phe Ala Leu Ser Ser Phe Leu Asn Lys Ala Ser Ala
 20 25 30
 Val Tyr Gln Ala Leu Gln Lys Ser Asn Gly Val Leu Pro Glu Leu Phe
 35 40 45
 Gln Cys His Gly Thr Ala Asp Glu Leu Val Leu His Ser Trp Ala Glu
 50 55 60
 Glu Thr Asn Ser Met Leu Lys Ser Leu Gly Val Thr Thr Lys Phe His
 65 70 75 80
 Ser Phe Pro Asn Val Tyr His Glu Leu Ser Lys Thr Glu Leu Asp Ile
 85 90 95
 Leu Lys Leu Trp Ile Leu Thr Lys Leu Pro Gly Glu Met Glu Lys Gln
 100 105 110
 Lys

<210> 2983

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2983

Met His Ala Cys Thr His Ala His Thr His Thr His Ala His Thr Leu
 1 5 10 15
 Ser Cys Lys Val Glu Ile Trp Gly Gln Tyr Leu Pro Thr His Thr His
 20 25 30
 Thr His Thr His Thr His Ala His Cys Pro Val Pro Pro Tyr Thr His
 35 40 45
 Ala His Ala Val Cys Thr Ser Leu His Thr His Thr His Thr His
 50 55 60
 Leu Ser Leu Tyr Trp Leu Ile Ser Leu Tyr Ile His Thr His Thr His
 65 70 75 80
 Thr His Thr His Thr His Ala Val Leu Tyr Leu Pro Thr His Thr His

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Thr His Ala Val Leu Thr Leu Ala Tyr Leu Pro Ile His Thr His Thr | | | |
| 100 | 105 | 110 | |
| His Thr His Thr His Thr Leu Ser Cys Thr Ser Leu Tyr Thr His Thr | | | |
| 115 | 120 | 125 | |
| Leu Ser Leu His Trp Leu Thr Cys Leu Tyr Thr His Thr His Ala His | | | |
| 130 | 135 | 140 | |
| Ala Val Leu Tyr Leu Pro Thr His Thr His Met Leu Ser Leu His Trp | | | |
| 145 | 150 | 155 | 160 |
| Leu Pro Val Leu Leu Thr Pro Phe Gln Glu Pro Pro Gln Ala Gly His | | | |
| 165 | 170 | 175 | |
| Leu Gly Pro Pro Cys Arg Val Gln Pro Trp Pro His Ser Asp Ile Gly | | | |
| 180 | 185 | 190 | |
| Gly Gly Asp Ala Ala Gln Leu Arg Gly Cys Gly Ser Arg Leu Gly | | | |
| 195 | 200 | 205 | |

<210> 2984

<211> 376

<212> PRT

<213> Homo sapiens

<400> 2984

| | | | |
|---|----|----|----|
| Met Ala Met Thr Pro Glu Arg Gln Asn Ala Tyr Ile Ser Gln Gln Met | | | |
| 1 | 5 | 10 | 15 |
| Ser Pro Phe Glu Ala Val Gln Glu Gln Val Thr Ser Lys Cys Ser Arg | | | |
| 20 | 25 | 30 | |
| Ile Lys Ala Ser Pro Pro Ser Ser Lys His Leu Met Pro Pro Arg Thr | | | |
| 35 | 40 | 45 | |
| Gly Leu Leu Gln Asn Asn Leu Ser Pro Gly Met Ile Pro Leu Thr Arg | | | |
| 50 | 55 | 60 | |
| His Gln Ser Cys Glu Gly Met Gly Val Ile Ser Pro Thr Leu Gly Lys | | | |
| 65 | 70 | 75 | 80 |
| Arg Gln Gly Ile Phe Thr Ser Ser Pro Gln Cys Pro Ile Leu Ser His | | | |
| 85 | 90 | 95 | |
| Ser Gly Gln Thr Pro Leu Gly Arg Leu Asp Ser Val Cys Gln His Met | | | |

| | | | |
|---|-----|-----|-----|
| 100 | 105 | 110 | |
| Gln Ser Pro Lys Ala Thr Pro Pro Glu Val Pro Leu Pro Gly Phe Cys | | | |
| 115 | 120 | 125 | |
| Pro Ser Ser Leu Gly Thr Gln Ser Leu Ser Pro His Gln Leu Arg Arg | | | |
| 130 | 135 | 140 | |
| Pro Ser Val Pro Arg Met Pro Thr Ala Phe Asn Asn Ala Ala Trp Val | | | |
| 145 | 150 | 155 | 160 |
| Thr Ala Ala Ala Ala Val Thr Thr Ala Val Ser Gly Lys Thr Pro Leu | | | |
| 165 | 170 | 175 | |
| Ser Gln Val Asp Asn Ser Val Gln Gln His Ser Pro Ser Gly Gln Ala | | | |
| 180 | 185 | 190 | |
| Cys Leu Gln Arg Pro Ser Asp Trp Glu Ala Gln Val Pro Ala Ala Met | | | |
| 195 | 200 | 205 | |
| Gly Thr Gln Val Pro Leu Ala Asn Asn Pro Ser Phe Ser Leu Leu Gly | | | |
| 210 | 215 | 220 | |
| Ser Gln Ser Leu Arg Gln Ser Pro Val Gln Gly Pro Val Pro Val Ala | | | |
| 225 | 230 | 235 | 240 |
| Asn Thr Thr Lys Phe Leu Gln Gln Gly Met Ala Ser Phe Ser Pro Leu | | | |
| 245 | 250 | 255 | |
| Ser Pro Ile Gln Gly Ile Glu Pro Pro Ser Tyr Val Ala Ala Ala Ala | | | |
| 260 | 265 | 270 | |
| Thr Ala Ala Ala Ala Ser Ala Val Ala Ala Ser Gln Phe Pro Gly Pro | | | |
| 275 | 280 | 285 | |
| Phe Asp Arg Thr Asp Ile Pro Pro Glu Leu Pro Pro Ala Asp Phe Leu | | | |
| 290 | 295 | 300 | |
| Arg Gln Pro Gln Pro Pro Leu Asn Asp Leu Ile Ser Ser Pro Asp Cys | | | |
| 305 | 310 | 315 | 320 |
| Asn Glu Val Asp Phe Ile Glu Ala Leu Leu Lys Gly Ser Cys Val Ser | | | |
| 325 | 330 | 335 | |
| Pro Asp Glu Asp Trp Val Cys Asn Leu Arg Leu Ile Asp Asp Ile Leu | | | |
| 340 | 345 | 350 | |
| Glu Gln His Ala Ala Ala Gln Asn Ala Thr Ala Gln Asn Ser Gly Gln | | | |
| 355 | 360 | 365 | |
| Val Thr Gln Asp Ala Gly Ala Leu | | | |
| 370 | 375 | | |

<210> 2985

<211> 359

<212> PRT

<213> Homo sapiens

<400> 2985

```

Met Asn Ser Val Ala Gly Asn Lys Glu Arg Leu Ala Val Ser Thr Arg
  1             5             10             15
Gly Lys Lys Tyr Gly Val Asn Glu Val Cys Ser Pro Thr Lys Pro Ala
      20             25             30
Ala Pro Phe Ser Pro Glu Ser Trp Tyr Arg Lys Ala Tyr Glu Glu Ser
      35             40             45
Arg Ala Gly Ser Arg Pro Thr Pro Glu Gly Ala Gly Ser Ala Leu Gly
      50             55             60
Ser Ser Gly Thr Pro Ser Pro Gly Ser Gly Thr Ser Ser Pro Ser Ser
      65             70             75             80
Phe Thr Ser Ser Pro Gly Pro Ala Ser Pro Gly Ile Gly Thr Ser Ser
      85             90             95
Pro Gly Ser Leu Gly Gly Ser Pro Gly Phe Gly Ala Gly Ser Pro Gly
      100            105            110
Ser Gly Ser Gly Gly Gly Ser Ser Pro Gly Ser Asp Arg Gly Val Trp
      115            120            125
Cys Glu Asn Cys Asn Ala Arg Leu Val Glu Leu Lys Arg Gln Ala Leu
      130            135            140
Arg Leu Leu Leu Pro Gly Pro Phe Pro Gly Lys Asp Pro Ala Phe Ser
      145            150            155            160
Ala Val Ile His Asp Lys Leu Gln Val Pro Asn Thr Ile Arg Lys Ala
      165            170            175
Trp Asn Asp Arg Asp Asn Arg Cys Asp Ile Cys Ala Thr His Leu Asn
      180            185            190
Gln Leu Lys Gln Glu Ala Ile Gln Met Val Leu Thr Leu Glu Gln Ala
      195            200            205
Ala Gly Ser Glu His Tyr Asp Ala Ser Pro Cys Ser Pro Pro Pro Leu
      210            215            220

```

Ser Asn Ile Pro Thr Leu Val Gly Ser Arg His Val Gly Gly Leu Gln
 225 230 235 240
 Gln Pro Arg Asp Trp Ala Phe Val Pro Ala Pro Cys Ala Thr Ser Asn
 245 250 255
 Tyr Thr Gly Phe Ala Asn Lys His Gly Ser Lys Pro Ser Ser Leu Gly
 260 265 270
 Val Ser Asn Gly Ala Glu Lys Lys Ser Gly Ser Pro Thr His Gln Ala
 275 280 285
 Lys Val Ser Leu Gln Met Ala Thr Ser Pro Ser Asn Gly Asn Ile Leu
 290 295 300
 Asn Ser Val Ala Ile Gln Ala His Gln Tyr Leu Asp Gly Thr Trp Ser
 305 310 315 320
 Leu Ser Arg Thr Asn Gly Val Thr Leu Tyr Pro Tyr Gln Ile Ser Gln
 325 330 335
 Leu Met Thr Glu Ser Ser Arg Glu Gly Leu Thr Glu Ala Ala Ala Thr
 340 345 350
 Ala Ala Thr Thr Ala Ala Cys
 355

<210> 2986

<211> 517

<212> PRT

<213> Homo sapiens

<400> 2986

Met Thr Val Pro Gly Gly Phe Arg Ser Cys Thr Glu Thr Asp Ile Ser
 1 5 10 15
 Ser Lys Ile Phe Ile Asn Ser Thr Leu Thr Pro Pro Ala Gly Ser Glu
 20 25 30
 Arg His Tyr Asp Ala Thr Leu Leu Thr Leu Leu Val Val Gly Ser Tyr
 35 40 45
 Ser Leu Cys Ile Ile Pro Leu Leu Ala Thr Phe Thr Gly Lys Lys Thr
 50 55 60
 Gly Asn Ala Ala Val Ile Lys Tyr Glu Glu Lys Pro Pro Lys Pro Ala
 65 70 75 80

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gln | Asn | Gly | Ser | Gly | Ser | Phe | Tyr | Leu | Lys | Pro | Leu | Val | Ser | |
| 85 | | | | 90 | | | | 95 | | | | | | | |
| Arg | Ala | His | Val | His | Leu | Met | Lys | Thr | Pro | Pro | Lys | Gly | Pro | Ser | Arg |
| 100 | | | | 105 | | | | 110 | | | | | | | |
| Lys | Asn | Leu | Phe | Thr | Ala | Leu | Asn | Ala | Val | Glu | Lys | Ser | Arg | Gln | Lys |
| 115 | | | | 120 | | | | 125 | | | | | | | |
| Asn | Pro | Arg | Ser | Leu | Cys | Ile | Gln | Pro | Gln | Thr | Ala | Pro | Asp | Ala | Leu |
| 130 | | | | 135 | | | | 140 | | | | | | | |
| Pro | Pro | Glu | Lys | Thr | Leu | Glu | Leu | Thr | Gln | Tyr | Lys | Thr | Lys | Cys | Glu |
| 145 | | | | 150 | | | | 155 | | | | 160 | | | |
| Asn | Gln | Ser | Gly | Phe | Ile | Leu | Gln | Leu | Lys | Gln | Leu | Leu | Ala | Cys | Gly |
| 165 | | | | 170 | | | | 175 | | | | | | | |
| Asn | Thr | Lys | Phe | Glu | Ala | Leu | Thr | Val | Val | Ile | Gln | His | Leu | Leu | Ser |
| 180 | | | | 185 | | | | 190 | | | | | | | |
| Glu | Arg | Glu | Glu | Ala | Leu | Lys | Gln | His | Lys | Thr | Leu | Ser | Gln | Glu | Leu |
| 195 | | | | 200 | | | | 205 | | | | | | | |
| Val | Asn | Leu | Arg | Gly | Glu | Leu | Val | Thr | Ala | Ser | Thr | Thr | Cys | Glu | Lys |
| 210 | | | | 215 | | | | 220 | | | | | | | |
| Leu | Glu | Lys | Ala | Arg | Asn | Glu | Leu | Gln | Thr | Val | Tyr | Glu | Ala | Phe | Val |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Gln | Gln | His | Gln | Ala | Glu | Lys | Thr | Glu | Arg | Glu | Asn | Arg | Leu | Lys | Glu |
| 245 | | | | 250 | | | | 255 | | | | | | | |
| Phe | Tyr | Thr | Arg | Glu | Tyr | Glu | Lys | Leu | Arg | Asp | Thr | Tyr | Ile | Glu | Glu |
| 260 | | | | 265 | | | | 270 | | | | | | | |
| Ala | Glu | Lys | Tyr | Lys | Met | Gln | Leu | Gln | Glu | Gln | Phe | Asp | Asn | Leu | Asn |
| 275 | | | | 280 | | | | 285 | | | | | | | |
| Ala | Ala | His | Glu | Thr | Ser | Lys | Leu | Glu | Ile | Glu | Ala | Ser | His | Ser | Glu |
| 290 | | | | 295 | | | | 300 | | | | | | | |
| Lys | Leu | Glu | Leu | Leu | Lys | Lys | Ala | Tyr | Glu | Ala | Ser | Leu | Ser | Glu | Ile |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Lys | Lys | Gly | His | Glu | Ile | Glu | Lys | Lys | Ser | Leu | Glu | Asp | Leu | Leu | Ser |
| 325 | | | | 330 | | | | 335 | | | | | | | |
| Glu | Lys | Gln | Glu | Ser | Leu | Glu | Lys | Gln | Ile | Asn | Asp | Leu | Lys | Ser | Glu |
| 340 | | | | 345 | | | | 350 | | | | | | | |
| Asn | Asp | Ala | Leu | Asn | Glu | Lys | Leu | Lys | Ser | Glu | Glu | Gln | Lys | Arg | Arg |
| 355 | | | | 360 | | | | 365 | | | | | | | |

Ala Arg Glu Lys Ala Asn Leu Lys Asn Pro Gln Ile Met Tyr Leu Glu
 370 375 380
 Gln Glu Leu Glu Ser Leu Lys Ala Val Leu Glu Ile Lys Asn Glu Lys
 385 390 395 400
 Leu His Gln Gln Asp Ile Lys Leu Met Lys Met Glu Lys Leu Val Asp
 405 410 415
 Asn Asn Thr Ala Leu Val Asp Lys Leu Lys Arg Phe Gln Gln Glu Asn
 420 425 430
 Glu Glu Leu Lys Ala Arg Met Asp Lys His Met Ala Ile Ser Arg Gln
 435 440 445
 Leu Ser Thr Glu Gln Ala Val Leu Gln Glu Ser Leu Glu Lys Glu Ser
 450 455 460
 Lys Val Asn Lys Arg Leu Ser Met Glu Asn Glu Glu Leu Leu Trp Lys
 465 470 475 480
 Leu His Asn Gly Asp Leu Cys Ser Pro Lys Arg Ser Pro Thr Ser Ser
 485 490 495
 Ala Ile Pro Leu Gln Ser Pro Arg Asn Ser Gly Ser Phe Pro Ser Pro
 500 505 510
 Ser Ile Ser Pro Arg
 515

<210> 2987

<211> 541

<212> PRT

<213> Homo sapiens

<400> 2987

Met Ala Gln Leu Glu Arg Ser Ala Ile Ser Gly Phe Ser Ser Lys Ser
 1 5 10 15
 Arg Arg Asn Ser Phe Ala Tyr Asp Val Lys Arg Glu Val Tyr Asn Glu
 20 25 30
 Glu Thr Phe Gln Gln Glu His Lys Arg Lys Ala Ser Ser Ser Gly Asn
 35 40 45
 Met Asn Ile Asn Ile Thr Thr Phe Arg His His Val Gln Cys Arg Cys
 50 55 60

Ser Trp His Arg Phe Leu Arg Cys Val Leu Thr Ile Phe Pro Phe Leu
 65 70 75 80
 Glu Trp Met Cys Met Tyr Arg Leu Lys Asp Trp Leu Leu Gly Asp Leu
 85 90 95
 Leu Ala Gly Ile Ser Val Gly Leu Val Gln Val Pro Gln Gly Leu Thr
 100 105 110
 Leu Ser Leu Pro Ala Arg Gln Leu Ile Pro Pro Leu Asn Ile Ala Tyr
 115 120 125
 Ala Ala Phe Cys Ser Ser Val Ile Tyr Val Ile Phe Gly Ser Cys His
 130 135 140
 Gln Met Ser Ile Gly Ser Phe Phe Leu Val Ser Ala Leu Leu Ile Asn
 145 150 155 160
 Val Leu Lys Val Ser Pro Phe Asn Asn Gly Gln Leu Val Met Gly Ser
 165 170 175
 Phe Val Lys Asn Glu Phe Ser Ala Pro Ser Tyr Leu Met Gly Tyr Asn
 180 185 190
 Lys Ser Leu Ser Val Val Ala Thr Thr Thr Phe Leu Thr Gly Ile Ile
 195 200 205
 Gln Leu Ile Met Gly Val Leu Gly Leu Gly Phe Ile Ala Thr Tyr Leu
 210 215 220
 Pro Glu Ser Ala Met Ser Ala Tyr Leu Ala Ala Val Ala Leu His Ile
 225 230 235 240
 Met Leu Ser Gln Leu Thr Phe Ile Phe Gly Ile Met Ile Ser Phe His
 245 250 255
 Ala Gly Pro Ile Ser Phe Phe Tyr Asp Ile Ile Asn Tyr Cys Val Ala
 260 265 270
 Leu Pro Lys Ala Asn Ser Thr Ser Ile Leu Val Phe Leu Thr Val Val
 275 280 285
 Val Ala Leu Arg Ile Asn Lys Cys Ile Arg Ile Ser Phe Asn Gln Tyr
 290 295 300
 Pro Ile Glu Phe Pro Met Glu Leu Phe Leu Ile Ile Gly Phe Thr Val
 305 310 315 320
 Ile Ala Asn Lys Ile Ser Met Ala Thr Glu Thr Ser Gln Thr Leu Ile
 325 330 335
 Asp Met Ile Pro Tyr Ser Phe Leu Leu Pro Val Thr Pro Asp Phe Ser
 340 345 350

Leu Leu Pro Lys Ile Ile Leu Gln Ala Phe Ser Leu Ser Leu Val Ser
 355 360 365
 Ser Phe Leu Leu Ile Phe Leu Gly Lys Lys Ile Ala Ser Leu His Asn
 370 375 380
 Tyr Ser Val Asn Ser Asn Gln Asp Leu Ile Ala Ile Gly Leu Cys Asn
 385 390 395 400
 Val Val Ser Ser Phe Phe Arg Ser Cys Val Phe Thr Gly Ala Ile Ala
 405 410 415
 Arg Thr Ile Ile Gln Asp Lys Ser Gly Gly Arg Gln Gln Phe Ala Ser
 420 425 430
 Leu Val Gly Ala Gly Val Met Leu Leu Leu Met Val Lys Met Gly His
 435 440 445
 Phe Phe Tyr Thr Leu Pro Asn Ala Val Leu Ala Gly Ile Ile Leu Ser
 450 455 460
 Asn Val Ile Pro Tyr Leu Glu Thr Ile Ser Asn Leu Pro Ser Leu Trp
 465 470 475 480
 Arg Gln Asp Gln Tyr Asp Cys Ala Leu Trp Met Met Thr Phe Ser Ser
 485 490 495
 Ser Ile Phe Leu Gly Leu Asp Ile Gly Leu Ile Ile Ser Val Val Ser
 500 505 510
 Ala Phe Phe Ile Thr Thr Val Arg Ser His Arg Tyr Phe Val Ser Gly
 515 520 525
 Asn Arg Arg Leu Thr Arg Gln Gly Lys Pro Thr Leu Thr
 530 535 540

<210> 2988

<211> 188

<212> PRT

<213> Homo sapiens

<400> 2988

Met Arg Thr Lys Pro Ser Gln Gly Phe Gly Val Ser Pro Glu Thr Pro
 1 5 10 15
 Leu Ser Trp Pro Gly Gly Gln Arg Ser Thr Leu Gln Glu Pro Pro Arg
 20 25 30

Gly Arg Trp Ala Thr Ser Pro Asn Lys Arg His Thr Arg Arg Pro Leu
 35 40 45
 Ala Arg Gly Gly Ile Cys Gly Leu Pro Arg Ala Lys Ala Ala Ala Pro
 50 55 60
 Gly Ala Gln Pro Val Thr Gly His Leu His Ala Ser Thr Gln Gln Thr
 65 70 75 80
 Trp Pro Gly Gly Gln Cys Pro Trp Pro Leu Ala Asn Arg Thr Leu Trp
 85 90 95
 Asn Arg Arg Asn Leu Gly Ser Cys Pro Ala Leu Trp Pro Ala Ser Pro
 100 105 110
 Trp Met Leu Leu Pro Gly Arg Thr Glu Pro Leu Pro Val Trp Pro Val
 115 120 125
 Pro Ala Phe Ser Gln Ile Gln Pro Arg Pro Leu Trp Ile Arg Ser Gly
 130 135 140
 His Arg Gln Thr Lys Gln Ala Val Ala Ser Leu Ala Gly Ser Asp Leu
 145 150 155 160

 Leu Gln His Lys Glu Arg Met His Cys Thr Ala Arg Pro Leu Gly Thr
 165 170 175
 Glu Gly Arg Cys Ser Ala Val Ser Phe Cys Tyr Arg
 180 185

<210> 2989

<211> 607

<212> PRT

<213> Homo sapiens

<400> 2989

Met Gln Glu Ser Gln Glu Pro Asn Leu Glu Asn Ile Trp Gly Gln Glu
 1 5 10 15
 Ala Ala Glu Val Asp Gln Glu Leu Val Glu Leu Leu Val Lys Glu Thr
 20 25 30
 Glu Ala Arg Phe Pro Asp Val Ala Asn Gly Phe Ile Glu Glu Ile Ile
 35 40 45
 His Phe Lys Asn Tyr Tyr Asp Leu Asn Val Leu Cys Asn Phe Leu Leu

| | | | |
|---|-----|-----|-----|
| 50 | 55 | 60 | |
| Glu Asn Pro Asp Tyr Pro Lys Arg Glu Asp Arg Ile Ile Ile Asn Pro | | | |
| 65 | 70 | 75 | 80 |
| Ser Ser Ser Leu Leu Ala Ser Gln Asp Glu Thr Lys Leu Pro Lys Ile | | | |
| 85 | 90 | 95 | |
| Asp Phe Phe Asp Tyr Ser Lys Leu Thr Pro Leu Asp Gln Arg Cys Phe | | | |
| 100 | 105 | 110 | |
| Ile Gln Ala Ala Asp Leu Leu Met Ala Asp Phe Lys Val Leu Ser Ser | | | |
| 115 | 120 | 125 | |
| Gln Asp Ile Lys Trp Ala Leu His Glu Leu Lys Gly His Tyr Ala Ile | | | |
| 130 | 135 | 140 | |
| Thr Arg Lys Ala Leu Ser Asp Ala Ile Lys Lys Trp Gln Glu Leu Ser | | | |
| 145 | 150 | 155 | 160 |
| Pro Glu Thr Gly Gly Lys Arg Lys Lys Arg Lys Gln Met Asn Gln Tyr | | | |
| 165 | 170 | 175 | |
| Ser Tyr Ile Asp Phe Lys Phe Glu Gln Gly Asp Ile Lys Ile Glu Lys | | | |
| 180 | 185 | 190 | |
| Arg Met Phe Phe Leu Glu Asn Lys Arg Arg His Cys Arg Ser Tyr Asp | | | |
| 195 | 200 | 205 | |
| Arg Arg Ala Leu Leu Pro Ala Val Gln Gln Glu Gln Glu Phe Tyr Glu | | | |
| 210 | 215 | 220 | |
| Gln Lys Ile Lys Glu Met Ala Glu His Glu Asp Phe Leu Leu Ala Leu | | | |
| 225 | 230 | 235 | 240 |
| Gln Met Asn Glu Glu Gln Tyr Gln Lys Asp Gly Gln Leu Ile Glu Cys | | | |
| 245 | 250 | 255 | |
| Arg Cys Cys Tyr Gly Glu Phe Pro Phe Glu Glu Leu Thr Gln Cys Ala | | | |
| 260 | 265 | 270 | |
| Asp Ala His Leu Phe Cys Lys Glu Cys Leu Ile Arg His Ala Gln Glu | | | |
| 275 | 280 | 285 | |
| Ala Val Phe Gly Ser Gly Lys Leu Glu Leu Ser Cys Met Glu Gly Ser | | | |
| 290 | 295 | 300 | |
| Cys Thr Cys Ser Phe Pro Thr Ser Glu Leu Glu Lys Val Leu Pro Gln | | | |
| 305 | 310 | 315 | 320 |
| Thr Ile Leu Tyr Lys Tyr Tyr Glu Arg Lys Ala Glu Glu Glu Val Ala | | | |
| 325 | 330 | 335 | |
| Ala Ala Tyr Ala Asp Glu Leu Val Arg Cys Pro Ser Cys Ser Phe Pro | | | |

| | | |
|---|-----|-----|
| 340 | 345 | 350 |
| Ala Leu Leu Asp Ser Asp Val Lys Arg Phe Ser Cys Pro Asn Pro His | | |
| 355 | 360 | 365 |
| Cys Arg Lys Glu Thr Cys Arg Lys Cys Gln Gly Leu Trp Lys Glu His | | |
| 370 | 375 | 380 |
| Asn Gly Leu Thr Cys Glu Glu Leu Ala Glu Lys Asp Asp Ile Lys Tyr | | |
| 385 | 390 | 395 |
| Arg Thr Ser Ile Glu Glu Lys Met Thr Ala Ala Arg Ile Arg Lys Cys | | |
| 405 | 410 | 415 |
| His Lys Cys Gly Thr Gly Leu Ile Lys Ser Glu Gly Cys Asn Arg Met | | |
| 420 | 425 | 430 |
| Ser Cys Arg Cys Gly Ala Gln Met Cys Tyr Leu Cys Arg Val Ser Ile | | |
| 435 | 440 | 445 |
| Asn Gly Tyr Asp His Phe Cys Gln His Pro Arg Ser Pro Gly Ala Pro | | |
| 450 | 455 | 460 |
| Cys Gln Glu Cys Ser Arg Cys Ser Leu Trp Thr Asp Pro Thr Glu Asp | | |
| 465 | 470 | 475 |
| Asp Glu Lys Leu Ile Glu Glu Ile Gln Lys Glu Ala Glu Glu Glu Gln | | |
| 485 | 490 | 495 |
| Lys Arg Lys Asn Gly Glu Asn Thr Phe Lys Arg Ile Gly Pro Pro Leu | | |
| 500 | 505 | 510 |
| Glu Lys Pro Val Glu Lys Val Gln Arg Val Glu Ala Leu Pro Arg Pro | | |
| 515 | 520 | 525 |
| Val Pro Gln Asn Leu Pro Gln Pro Gln Met Pro Pro Tyr Ala Phe Ala | | |
| 530 | 535 | 540 |
| His Pro Pro Phe Pro Leu Pro Pro Val Arg Pro Val Phe Asn Asn Phe | | |
| 545 | 550 | 555 |
| Pro Leu Asn Met Gly Pro Ile Pro Ala Pro Tyr Val Pro Pro Leu Pro | | |
| 565 | 570 | 575 |
| Asn Val Arg Val Asn Tyr Asp Phe Gly Pro Ile His Met Pro Leu Glu | | |
| 580 | 585 | 590 |
| Ile Asn Leu Pro Met His Phe Gly Pro Gln Pro Arg His Arg Phe | | |
| 595 | 600 | 605 |

<211> 473

<212> PRT

<213> Homo sapiens

<400> 2990

Met Asp Ile Gln Ala Met Glu Glu Asn Leu Leu Arg Ile Thr Glu Thr
 1 5 10 15
 Trp Lys Ala Tyr Asn Ser Asp Phe Glu Glu Ser Asp Glu Phe Lys Leu
 20 25 30
 Phe Met Lys Arg Leu Pro Met Asn Tyr Phe Leu Asn Thr Ser Thr Ile
 35 40 45
 Met His Leu Trp Thr Met Asp Ser Asn Phe Gln Arg Arg Tyr Glu Gln
 50 55 60
 Leu Glu Asn Ser Met Lys Gln Leu Phe Leu Lys Ala Gln Lys Ile Val
 65 70 75 80
 His Lys Leu Phe Ser Leu Ser Lys Arg Cys His Lys Gln Pro Leu Ile
 85 90 95
 Ser Leu Pro Arg Gln Arg Thr Ser Thr Tyr Trp Leu Thr Arg Ile Gln
 100 105 110
 Ser Phe Leu Tyr Cys Asn Glu Asn Gly Leu Leu Gly Ser Phe Ser Glu
 115 120 125
 Glu Thr His Ser Cys Thr Cys Pro Asn Asp Gln Val Val Cys Thr Ala
 130 135 140
 Phe Leu Pro Cys Thr Val Gly Asp Ala Ser Ala Cys Leu Thr Cys Ala
 145 150 155 160
 Pro Asp Asn Arg Thr Arg Cys Gly Thr Cys Asn Thr Gly Tyr Met Leu
 165 170 175
 Ser Gln Gly Leu Cys Lys Pro Glu Val Ala Glu Ser Thr Asp His Tyr
 180 185 190
 Ile Gly Phe Glu Thr Asp Leu Gln Asp Leu Glu Met Lys Tyr Leu Leu
 195 200 205
 Gln Lys Thr Asp Arg Arg Ile Glu Val His Ala Ile Phe Ile Ser Asn
 210 215 220
 Asp Met Arg Leu Asn Ser Trp Phe Asp Pro Ser Trp Arg Lys Arg Met
 225 230 235 240
 Leu Leu Thr Leu Lys Ser Asn Lys Tyr Lys Ser Ser Leu Val His Met

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 245 | | 250 | | 255 | | | | | | | | | | |
| Ile | Leu | Gly | Leu | Ser | Leu | Gln | Ile | Cys | Leu | Thr | Lys | Asn | Ser | Thr | Leu |
| | 260 | | 265 | | 270 | | | | | | | | | | |
| Glu | Pro | Val | Leu | Ala | Val | Tyr | Val | Asn | Pro | Phe | Gly | Gly | Ser | His | Ser |
| | 275 | | 280 | | 285 | | | | | | | | | | |
| Glu | Ser | Trp | Phe | Met | Pro | Val | Asn | Glu | Asn | Ser | Phe | Pro | Asp | Trp | Glu |
| | 290 | | 295 | | 300 | | | | | | | | | | |
| Arg | Thr | Lys | Leu | Asp | Leu | Pro | Leu | Gln | Cys | Tyr | Asn | Trp | Thr | Leu | Thr |
| 305 | | | 310 | | 315 | | | | | | | | | 320 | |
| Leu | Gly | Asn | Lys | Trp | Lys | Thr | Phe | Phe | Glu | Thr | Val | His | Ile | Tyr | Leu |
| | 325 | | 330 | | 335 | | | | | | | | | | |
| Arg | Ser | Arg | Ile | Lys | Ser | Asn | Gly | Pro | Asn | Gly | Asn | Glu | Ser | Ile | Tyr |
| | 340 | | 345 | | 350 | | | | | | | | | | |
| Tyr | Glu | Pro | Leu | Glu | Phe | Ile | Asp | Pro | Ser | Arg | Asn | Leu | Gly | Tyr | Met |
| | 355 | | 360 | | 365 | | | | | | | | | | |
| Lys | Ile | Asn | Asn | Ile | Gln | Val | Phe | Gly | Tyr | Ser | Met | His | Phe | Asp | Pro |
| | 370 | | 375 | | 380 | | | | | | | | | | |
| Glu | Ala | Ile | Arg | Asp | Leu | Ile | Leu | Gln | Leu | Asp | Tyr | Pro | Tyr | Thr | Gln |
| 385 | | | 390 | | 395 | | | | | | | | | 400 | |
| Gly | Ser | Gln | Asp | Ser | Ala | Leu | Leu | Gln | Leu | Leu | Glu | Phe | Arg | Asp | Arg |
| | 405 | | 410 | | 415 | | | | | | | | | | |
| Val | Asn | Lys | Leu | Ser | Pro | Pro | Gly | Gln | Arg | Arg | Leu | Asp | Leu | Phe | Ser |
| | 420 | | 425 | | 430 | | | | | | | | | | |
| Cys | Leu | Leu | Arg | His | Arg | Leu | Lys | Leu | Ser | Thr | Ser | Glu | Val | Val | Arg |
| | 435 | | 440 | | 445 | | | | | | | | | | |
| Ile | Gln | Ser | Ala | Leu | Gln | Ala | Phe | Asn | Ala | Lys | Leu | Pro | Asn | Thr | Met |
| | 450 | | 455 | | 460 | | | | | | | | | | |
| Asp | Tyr | Asp | Thr | Thr | Lys | Leu | Cys | Ser | | | | | | | |
| 465 | | | 470 | | | | | | | | | | | | |

<210> 2991

<211> 419

<212> PRT

<213> Homo sapiens

<400> 2991

Met Leu Ala Ala Ala Phe Ala Asp Ser Asn Ser Ser Ser Met Asn Val
 1 5 10 15
 Ser Phe Ala His Leu His Phe Ala Gly Gly Tyr Leu Pro Ser Asp Ser
 20 25 30
 Gln Asp Trp Arg Thr Ile Ile Pro Ala Leu Leu Val Ala Val Cys Leu
 35 40 45
 Val Gly Phe Val Gly Asn Leu Cys Val Ile Gly Ile Leu Leu His Asn
 50 55 60
 Ala Trp Lys Gly Lys Pro Ser Met Ile His Ser Leu Ile Leu Asn Leu
 65 70 75 80
 Ser Leu Ala Asp Leu Ser Leu Leu Leu Phe Ser Ala Pro Ile Arg Ala
 85 90 95
 Thr Ala Tyr Ser Lys Ser Val Trp Asp Leu Gly Trp Phe Val Cys Lys
 100 105 110
 Ser Ser Asp Trp Phe Ile His Thr Cys Met Ala Ala Lys Ser Leu Thr
 115 120 125
 Ile Val Val Val Ala Lys Val Cys Phe Met Tyr Ala Ser Asp Pro Ala
 130 135 140
 Lys Gln Val Ser Ile His Asn Tyr Thr Ile Trp Ser Val Leu Val Ala
 145 150 155 160
 Ile Trp Thr Val Ala Ser Leu Leu Pro Leu Pro Glu Trp Phe Phe Ser
 165 170 175
 Thr Ile Arg His His Glu Gly Val Glu Met Cys Leu Val Asp Val Pro
 180 185 190
 Ala Val Ala Glu Glu Phe Met Ser Met Phe Gly Lys Leu Tyr Pro Leu
 195 200 205
 Leu Ala Phe Gly Leu Pro Leu Phe Phe Ala Ser Phe Tyr Phe Trp Arg
 210 215 220
 Ala Tyr Asp Gln Cys Lys Lys Arg Gly Thr Lys Thr Gln Asn Leu Arg
 225 230 235 240
 Asn Gln Ile Arg Ser Lys Gln Val Thr Val Met Leu Leu Ser Ile Ala
 245 250 255
 Ile Ile Ser Ala Leu Leu Trp Leu Pro Glu Trp Val Ala Trp Leu Trp
 260 265 270
 Val Trp His Leu Lys Ala Ala Gly Pro Ala Pro Pro Gln Gly Phe Ile

| | | |
|---------------------|-----------------------------|---------------------|
| 275 | 280 | 285 |
| Ala Leu Ser Gln Val | Leu Met Phe Ser Ile Ser Ser | Ala Asn Pro Leu |
| 290 | 295 | 300 |
| Ile Phe Leu Val Met | Ser Glu Glu Phe Arg Glu Gly | Leu Lys Gly Val |
| 305 | 310 | 315 |
| Trp Lys Trp Met Ile | Thr Lys Lys Pro Pro Thr Val | Ser Glu Ser Gln |
| 325 | 330 | 335 |
| Glu Thr Pro Ala Gly | Asn Ser Glu Gly Leu Pro Asp | Lys Val Pro Ser |
| 340 | 345 | 350 |
| Pro Glu Ser Pro Ala | Ser Ile Pro Glu Lys Glu Lys | Pro Ser Ser Pro |
| 355 | 360 | 365 |
| Ser Ser Gly Lys Gly | Lys Thr Glu Lys Ala Glu Ile | Pro Ile Leu Pro |
| 370 | 375 | 380 |
| Asp Val Glu Gln Phe | Trp His Glu Arg Asp Thr Val | Pro Ser Val Gln |
| 385 | 390 | 395 |
| Asp Asn Asp Pro Ile | Pro Trp Glu His Glu Asp | Gln Glu Thr Gly Glu |
| 405 | 410 | 415 |
| Gly Val Lys | | |

<210> 2992

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2992

| | | | |
|---------------------|---------------------|-----------------|-------------|
| Met Thr Pro Pro Gly | Thr Ser Tyr Pro Ser | Gln Thr Pro Val | Gln Pro |
| 1 | 5 | 10 | 15 |
| Ala Pro Asp Val Asp | Tyr Asp Ser Ala Thr | Ser Ala Gly Ser | Glu Val |
| 20 | 25 | 30 | |
| Gly Val Ser Pro Ser | Cys Arg Arg Val Trp | Ala Ala Pro Leu | Gln Thr |
| 35 | 40 | 45 | |
| Ser Cys Ala Pro Trp | Ala Ala Pro His Leu | His Pro His Pro | Arg Gly |
| 50 | 55 | 60 | |
| Ser Ala Pro Lys Ala | Ala Ala Ser Gly | Glu Ala Arg Ser | Pro Arg Ser |

65 70 75 80
 Ser Trp Trp Gly Glu Arg Arg Arg Pro Ser Glu Asp Ala Leu Gly Thr
 85 90 95
 Trp Glu Arg Lys Glu Gly Lys Glu Glu Gly Lys Gly Ala Val Asp Val
 100 105 110
 Phe Asp Val Cys Ala Leu Met Glu Ala Thr Asn Ile Glu Lys Thr Gly
 115 120 125
 Leu Ala Glu Ala Ala Arg Thr Leu Leu Leu Ala Ser Ala Arg Val Lys
 130 135 140
 Ala Arg Ala Asn Arg Gly Leu Ser Gly Cys Pro Lys Gly Ala Asp Thr
 145 150 155 160
 Trp Phe Ser Thr Gly Thr Gln Asn Ser His Arg Gly Arg Lys Met Arg
 165 170 175
 Ser Leu Cys Leu Pro Val Gly Lys Arg Asp Ile Gln Lys
 180 185

<210> 2993

<211> 401

<212> PRT

<213> Homo sapiens

<400> 2993

Met Ala Cys Leu Glu Phe Val Pro Phe Asp Val Gln Met Cys Leu Glu
 1 5 10 15
 Phe Leu Pro Ser Gly Glu Phe Val Val Leu Leu Thr Ser Gly Val Gln
 20 25 30
 Leu Gln Thr Phe Thr Ala Ser Val Thr Asp Leu Lys Gly Gly Ala Ser
 35 40 45
 Gly Val Val Arg Ser Ser Arg Trp Val Arg Gly Phe Thr Asp Phe Arg
 50 55 60
 Ser Lys Ala Val Asp Leu Cys Gly Pro Lys Pro Val Val Phe Leu Gln
 65 70 75 80
 His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val Thr Asn Leu Ala Asn
 85 90 95
 Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly Phe Asp Val Trp Met

| | | | |
|---|-----|-----|-----|
| 100 | 105 | 110 | |
| Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys His Lys Thr Leu Ser | | | |
| 115 | 120 | 125 | |
| Val Ser Gln Asp Glu Phe Trp Ala Phe Arg Val Pro Phe Leu Asp Tyr | | | |
| 130 | 135 | 140 | |
| Ser Tyr Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe | | | |
| 145 | 150 | 155 | 160 |
| Ile Leu Asn Lys Thr Gly Gln Glu Gln Val Tyr Tyr Val Gly His Ser | | | |
| 165 | 170 | 175 | |
| Gln Gly Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu | | | |
| 180 | 185 | 190 | |
| Ala Lys Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser Val | | | |
| 195 | 200 | 205 | |
| Ala Phe Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro Asp His | | | |
| 210 | 215 | 220 | |
| Leu Ile Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro Gln Ser Ala | | | |
| 225 | 230 | 235 | 240 |
| Phe Leu Lys Trp Leu Gly Thr His Val Cys Thr His Val Ile Leu Lys | | | |
| 245 | 250 | 255 | |
| Glu Leu Cys Gly Asn Leu Cys Phe Leu Leu Cys Gly Phe Asn Glu Arg | | | |
| 260 | 265 | 270 | |
| Asn Leu Asn Met Ser Arg Val Asp Val Tyr Thr Thr His Ser Pro Ala | | | |
| 275 | 280 | 285 | |
| Gly Thr Ser Val Gln Asn Met Leu His Trp Ser Gln Ala Val Lys Phe | | | |
| 290 | 295 | 300 | |
| Gln Lys Phe Gln Ala Phe Asp Trp Gly Ser Ser Ala Lys Asn Tyr Phe | | | |
| 305 | 310 | 315 | 320 |
| His Tyr Asn Gln Ser Tyr Pro Pro Thr Tyr Asn Val Lys Asp Met Leu | | | |
| 325 | 330 | 335 | |
| Val Pro Thr Ala Val Trp Ser Gly Gly His Asp Trp Leu Ala Asp Val | | | |
| 340 | 345 | 350 | |
| Tyr Asp Val Asn Ile Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His | | | |
| 355 | 360 | 365 | |
| Glu Ser Ile Pro Glu Trp Glu His Leu Asp Phe Ile Trp Gly Leu Asp | | | |
| 370 | 375 | 380 | |
| Ala Pro Trp Arg Leu Tyr Asn Lys Ile Ile Asn Leu Met Arg Lys Tyr | | | |

385 390 395 400
Gln

<210> 2994

<211> 215

<212> PRT

<213> Homo sapiens

<400> 2994

Met His Val Cys Thr Gly Ala Ser Lys Pro Leu Val Ser Thr Pro Tyr
1 5 10 15
His Pro Thr Pro Thr Ser Leu Ile Ser Ala Pro Ser Leu Gly Cys Ala
20 25 30
Pro Leu Leu Ser Ala Arg Gly Cys Leu His Val Gly Val Cys Met Trp
35 40 45
Val Ser Val Pro Ser Ser Val Ser Cys Leu His Val Gly Val Cys Thr
50 55 60
Leu Thr Cys Leu Val Ser Ala Gln Ala Cys Val Gly Val Pro Ala Gly
65 70 75 80
Leu Phe Gly Gly Arg Pro Val Ile Leu Glu Val Thr His Val Phe Cys
85 90 95
Gly Cys Leu Leu Leu Ala Pro His Ser Val Glu Met Gly Leu His Trp
100 105 110
Pro Arg Leu Ser Pro Ala His Pro Pro Pro Ser Leu Pro Ala Ser Lys
115 120 125
Pro Arg Asn Ser Gly Phe Arg Gly Pro Ser Gln Val Ser Thr Trp Gln
130 135 140
Gln Cys Leu Gln Thr Pro Gly Trp Pro Ile Cys Pro Pro Ala Arg Leu
145 150 155 160
Ser Asp Leu Ser Leu Pro Gly Cys Pro Cys Leu His Pro Ser Ser Pro
165 170 175
Ser His Cys Arg Cys Leu Pro Thr Ser His Pro Trp Val Pro Ser Gln
180 185 190
Pro Leu Trp Pro Pro Gln Leu Gly Pro Leu Ser Ser Arg Leu Pro His

| | | |
|-----------------------------|-----|-----|
| 195 | 200 | 205 |
| Pro Val Leu Leu Pro Pro Ser | | |
| 210 | 215 | |

<210> 2995

<211> 358

<212> PRT

<213> Homo sapiens

<400> 2995

| |
|---|
| Met Glu Gly Glu Gly Val Arg Asn Phe Lys Glu Leu Arg Ala Lys Phe |
| 1 5 10 15 |
| Gln Asn Leu Asp Ala Pro Pro Leu Pro Gly Pro Ile Lys Phe Pro Ala |
| 20 25 30 |
| Gly Val Ser Pro Lys Gly Asp Ile Gly Gly Thr Gln Ser Thr Gln Ile |
| 35 40 45 |
| Leu Ala Asn Gly Lys Pro Leu Ser Ser Asn His Lys Gln Arg Thr Pro |
| 50 55 60 |
| Tyr Cys Ser Ser Ser Glu Ser Gln Pro Leu Gln Pro Gln Lys Ile Lys |
| 65 70 75 80 |
| Leu Ala Gln Lys Ser Glu Ile Pro Lys Cys Ser Asn Ser Pro Gly Pro |
| 85 90 95 |
| Leu Gly Lys Ser Thr Val Cys Ser Ala Thr Ser Ser Gln Lys Ala Ser |
| 100 105 110 |
| Leu Leu Leu Glu Val Thr Gln Ser Asn Val Glu Ile Ile Thr Lys Glu |
| 115 120 125 |
| Lys Val Met Val Ala Asn Ser Phe Arg Asn Lys Leu Trp Asn Trp Glu |
| 130 135 140 |
| Lys Val Ser Ser Gln Lys Ser Glu Met Ser Ser Ala Leu Leu Leu Ala |
| 145 150 155 160 |
| Asn Tyr Gly Ser Lys Ala Ile His Leu Glu Gly Gln Lys Gly Met Gly |
| 165 170 175 |
| Leu Thr Pro Glu Glu Pro Arg Lys Lys Leu Glu Thr Lys Gly Ala Gln |
| 180 185 190 |
| Thr Leu Pro Ser Gln Lys His Val Val Ala Pro Lys Ile Leu His Asn |

| | | |
|---|-------------------------------------|-----|
| 195 | 200 | 205 |
| Val Ser Glu Asp Pro Ser Phe | Val Ile Ser Gln His Ile Arg Lys Ser | |
| 210 | 215 | 220 |
| Trp Glu Asn Pro Pro Pro Glu Arg Ser Pro Ala Ser Ser Pro Cys Gln | | |
| 225 | 230 | 235 |
| Pro Ile Tyr Glu Cys Glu Leu Ala Ser Gln Ala Pro Glu Lys Gln Pro | | |
| 245 | 250 | 255 |
| Asp Val Arg His His His Leu Pro Lys Thr Lys Pro Leu Pro Ser Ile | | |
| 260 | 265 | 270 |
| Asp Ser Leu Gly Pro Pro Pro Pro Lys Pro Ser Arg Pro Pro Ile Val | | |
| 275 | 280 | 285 |
| Asn Leu Gln Ala Phe Gln Arg Gln Pro Ala Ala Val Pro Lys Thr Gln | | |
| 290 | 295 | 300 |
| Gly Glu Val Thr Val Glu Glu Gly Ser Leu Ser Pro Glu Arg Leu Phe | | |
| 305 | 310 | 315 |
| Asn Ala Glu Phe Glu Glu Pro His Asn Tyr Glu Ala Thr Ile Ser Tyr | | |
| 325 | 330 | 335 |
| Leu Arg His Ser Gly Asn Ser Ile Asn Leu Cys Thr Ala Lys Glu Ile | | |
| 340 | 345 | 350 |
| Ala Asp Arg Arg Cys Leu | | |
| 355 | | |

<210> 2996

<211> 261

<212> PRT

<213> Homo sapiens

<400> 2996

| |
|---|
| Met Thr Ile Gln Arg Leu Lys Gly Ser Ser His Ala Val His Glu Met |
| 1 5 10 15 |
| Lys Ser Leu Lys Gln Glu Lys Ala Pro Val Ser Lys Thr Tyr Lys Val |
| 20 25 30 |
| Pro Leu Asn Gly Gln Val Tyr Glu Leu Leu Thr Val Phe Met Asp Trp |
| 35 40 45 |
| Ile Ser Asp His His Leu Ser Lys Val Lys His Glu Glu Ser Gly Met |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Asp Gly Lys Lys Pro Gln Leu Lys Phe Ala Ser Gln Arg Asn Asp Ile | | |
| 65 | 70 | 75 |
| Gln Glu Lys Cys Val Lys Leu Leu Pro Leu Met Thr Glu Gln Leu Gln | | |
| 85 | 90 | 95 |
| Trp Met Pro Phe Val Asn Ile Lys Leu His Glu Pro Phe Val Lys Phe | | |
| 100 | 105 | 110 |
| Ile Tyr Trp Ser Leu Arg Gln Leu Asp Ala Gly Ala Gln His Ser Thr | | |
| 115 | 120 | 125 |
| Met Thr Ser Thr Leu Arg Arg Leu Gly Glu Asp Ile Phe Lys Gly Val | | |
| 130 | 135 | 140 |
| Val Thr Lys Gly Ile Gln Asp Asn Ser Pro Gln His Ser Val Glu Asn | | |
| 145 | 150 | 155 |
| Lys Pro Lys Thr Ala Ala Phe Phe Lys Ser Ser Asn Leu Pro Leu Arg | | |
| 165 | 170 | 175 |
| Phe Leu Ser Thr Leu Ile Val Leu Lys Thr Val Thr Gln Ala Asp Tyr | | |
| 180 | 185 | 190 |
| Leu Ala Gln Ala Phe Asp Ser Leu Cys Leu Asp Leu Lys Thr Glu Glu | | |
| 195 | 200 | 205 |
| Gly Lys Thr Leu Phe Leu Glu Tyr Gln Ala Val Pro Val Ile Leu Ser | | |
| 210 | 215 | 220 |
| His Leu Arg Ile Ser Ser Lys Gly Leu Leu Ser Asn Val Ile Asp Ser | | |
| 225 | 230 | 235 |
| Leu Leu Gln Met Thr Val Glu Ser Arg Val Ile Arg Ser Ser Leu Asn | | |
| 245 | 250 | 255 |
| Phe Leu Arg Phe Ile | | |
| 260 | | |

<210> 2997

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2997

Met Tyr Gly Cys Tyr Thr Pro Thr Ala Tyr Ser Thr Arg Ser Ala Pro

1 5 10 15
 Glu Glu Asp Trp Val Lys Leu Cys Lys Phe Gly Phe Pro Gly Asn Ala
 20 25 30
 Leu His Tyr Ser Ala Pro Asp Leu Pro Thr Thr Pro Val Gly Thr Arg
 35 40 45
 Ser Ser Thr His Leu Ala Glu Leu Met Thr Ala Trp Ala Gln Arg Ser
 50 55 60
 Ala His Cys Ala Asn Thr Arg Thr Gly Ile Ala Pro Leu Pro Glu Pro
 65 70 75 80
 Pro Tyr Arg Ala Pro Phe Lys Glu Leu Ala Thr Pro Leu Thr Cys Lys
 85 90 95
 Gln Pro Pro Thr Leu Lys Leu Ile Arg Thr Arg Val Phe His Pro Lys
 100 105 110
 Gly Leu Cys Cys Gly Arg Cys Ser Asp Pro Arg Arg Gly Arg Glu Val
 115 120 125
 Pro Lys Ala Thr Ala Arg Gly Trp Gly Thr Pro Leu Leu Thr Leu Val
 130 135 140
 Leu Asp Phe Glu Gly Pro Asn
 145 150

<210> 2998

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2998

Met Pro Arg Gly Leu Arg Pro Gly Cys Pro Val Arg Thr Gly Arg Leu
 1 5 10 15
 Val Thr Leu Glu Ser Pro Leu Gln Val Pro Ala Pro Pro Gly Asn Pro
 20 25 30
 Gln Pro Pro Arg Arg Ala Trp Ala Ser Pro Tyr Arg Trp Gly Ala Ala
 35 40 45
 Gln Cys Thr Pro Glu Gly Gly Arg Arg Gly Leu Gly Thr Pro Pro Val
 50 55 60
 Leu Arg Arg Arg Gly Leu Arg Arg Cys Cys Pro Pro Gln Arg Ala Leu

65 70 75 80
 Gly Leu Gly Leu Arg Arg Ser Lys Cys Leu Pro Gly Ala Gly Arg Gln
 85 90 95
 Gly Gly Ala Gly Ala Ala Arg Cys Ala Ala Ala Leu Gly Arg Arg Arg
 100 105 110
 Arg Thr Gly Ala Arg Gly Val Arg Gly Ala Arg Gln Ala Ala Ser Ala
 115 120 125
 Leu Ala Leu Arg Gly Arg Arg Asp Ser Arg Asp Arg Pro Trp Gly Pro
 130 135 140
 Gly Val
 145

<210> 2999

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2999

Met Leu Gly Ala Gly Leu Ile Lys Ile Arg Gly Asp Arg Cys Trp Arg
 1 5 10 15
 Asp Leu Thr Cys Met Asp Phe His Tyr Glu Thr Gln Pro Met Pro Asn
 20 25 30
 Pro Val Ala Tyr Tyr Leu His His Ser Pro Trp Trp Phe His Arg Phe
 35 40 45
 Glu Thr Leu Ser Asn His Phe Ile Glu Leu Leu Val Pro Phe Phe Leu
 50 55 60
 Phe Leu Gly Arg Arg Ala Cys Ile Ile His Gly Val Leu Gln Ile Leu
 65 70 75 80
 Phe Gln Ala Val Leu Ile Val Ser Gly Asn Leu Ser Phe Leu Asn Trp
 85 90 95
 Leu Thr Met Val Pro Ser Leu Ala Cys Phe Asp Asp Ala Thr Leu Gly
 100 105 110
 Phe Leu Phe Pro Ser Gly Pro Gly Ser Leu Lys Asp Arg Val Leu Gln
 115 120 125
 Met Gln Arg Asp Ile Arg Gly Ala Trp Pro Glu Pro Arg Phe Gly Ser

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Val Val Gln Arg Ala Ala Asn Val Ser Leu Gly Val Leu Leu Ala Trp | | | |
| 145 | 150 | 155 | 160 |
| Leu Ser Val Pro Val Val Leu Asn Leu Leu Ser Ser Arg Gln Val Met | | | |
| | 165 | 170 | 175 |
| Asn Thr His Phe Asn Ser Leu His Ile Val Asn Thr Tyr Gly Ala Phe | | | |
| | 180 | 185 | 190 |
| Gly Ser Ile Thr Lys Glu Arg Ala Glu Val Ile Leu Gln Gly Thr Ala | | | |
| | 195 | 200 | 205 |
| Ser Ser Asn Ala Ser Ala Pro Asp Ala Met Trp Glu Asp Tyr Glu Phe | | | |
| | 210 | 215 | 220 |
| Lys Cys Lys Pro Gly Asp Pro Ser Arg Arg Pro Cys Leu Ile Ser Pro | | | |
| 225 | 230 | 235 | 240 |
| Tyr His Tyr Arg Leu Asp Trp Leu Met Trp Phe Ala Ala Phe Gln Thr | | | |
| | 245 | 250 | 255 |
| Tyr Glu His Asn Asp Trp Ile Ile His Leu Ala Gly Lys Leu Leu Ala | | | |
| | 260 | 265 | 270 |
| Ser Asp Ala Glu Ala Leu Ser Leu Leu Ala His Asn Pro Phe Ala Gly | | | |
| | 275 | 280 | 285 |
| Arg Pro Pro Pro Arg Trp Val Arg Gly Glu His Tyr Arg Tyr Lys Phe | | | |
| | 290 | 295 | 300 |
| Ser Arg Pro Gly Gly Arg His Ala Ala Glu Gly Lys Trp Trp Val Arg | | | |
| 305 | 310 | 315 | 320 |
| Lys Arg Ile Gly Ala Tyr Phe Pro Pro Leu Ser Leu Glu Glu Leu Arg | | | |
| | 325 | 330 | 335 |
| Pro Tyr Phe Arg Asp Arg Gly Trp Pro Leu Pro Gly Pro Leu | | | |
| | 340 | 345 | 350 |

<210> 3000

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3000

Met Gly Gly Ala Gly Gly Gln His Gly Thr Asp Leu His Pro Ala Leu

1 5 10 15
 Gln Thr Gly Thr Thr Ala Arg Pro Cys Cys Trp Met Val Ser Ser Val
 20 25 30
 Trp Ala Pro Ser Trp Asn Thr Thr Gln Ser Thr Ala Thr Gly Thr Ala
 35 40 45
 Leu Thr Glu Ala Arg Gly Pro Ala Cys Pro Gly Pro Leu Ser Leu Lys
 50 55 60
 Pro Arg Leu Val Pro Pro Thr Cys Cys Val Met Val Trp Leu Pro Arg
 65 70 75 80
 Pro Ser Leu Gly Trp Val Trp Gly Trp Ser Gly Leu Ala His Ala Ser
 85 90 95
 His Leu Cys Leu His Leu Cys Cys His Pro Ala Pro Pro Ser Ser Ser
 100 105 110
 Ser Pro Thr Ser Ser Ser Leu Cys Ala Ser Val Ser Cys Arg Lys Lys
 115 120 125
 Trp Val Glu Pro Glu Arg Arg Leu Ser Glu Glu Gly Arg Gly Arg Ala
 130 135 140
 Trp Gly Gly Ser Pro Thr Pro His Pro Lys Ser Gln Gly Leu Pro Pro
 145 150 155 160
 Gly Ser Gly Arg Gly Arg Ser Trp Leu Cys Gly Val Val Ala Pro Leu
 165 170 175
 Leu Leu Pro Cys Phe Ser His Leu Ser Cys Pro Ser Leu Val Pro Thr
 180 185 190
 Ala Val His His Glu
 195

<210> 3001

<211> 157

<212> PRT

<213> Homo sapiens

<400> 3001

Met Leu Ser Met Ile Cys Ser Arg Asn Leu Thr Ala Pro Asn Pro Met
 1 5 10 15
 Lys Asp Ala Gly Asp Met Ile Glu Met Gln Gly Phe Gly Pro Ser Leu

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 |
| Pro | Ala | Trp | His | Leu | Glu |
| | 35 | | 40 | | 45 |
| Ser | Cys | Ser | Ser | Ser | Ser |
| | 50 | | 55 | | 60 |
| Cys | Ile | Pro | Asp | Arg | Leu |
| | 65 | | 70 | | 75 |
| Arg | Gln | Ile | Val | Ser | Arg |
| | 85 | | 90 | | 95 |
| His | Leu | Ser | Thr | Val | Arg |
| | 100 | | 105 | | 110 |
| Val | Ile | Pro | Pro | Asp | Arg |
| | 115 | | 120 | | 125 |
| Asp | Val | Trp | Ser | Lys | Tyr |
| | 130 | | 135 | | 140 |
| Phe | Gln | Gly | His | Arg | Ser |
| | 145 | | 150 | | 155 |

<210> 3002

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3002

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Gln | His | Asn | Cys | Ser | Lys | Asp | Gly | Pro | Thr | Ser | Gln | Pro | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Thr | Leu | Pro | Pro | Ala | Gly | Asp | Ser | Gln | Glu | Arg | Ser | Asp | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Glu | Ile | Cys | His | Tyr | Glu | Lys | Ser | Phe | His | Lys | His | Ser | Ala | Thr |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Pro | Asn | Tyr | Thr | His | Cys | Gly | Leu | Phe | Gly | Asp | Pro | His | Leu | Arg | Thr |
| | 50 | | | | | | 55 | | | | | | 60 | | |
| Phe | Thr | Asp | Arg | Phe | Gln | Thr | Cys | Lys | Val | Gln | Gly | Ala | Trp | Pro | Leu |
| | 65 | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Asp | Asn | Asn | Tyr | Leu | Asn | Val | Gln | Val | Thr | Asn | Thr | Pro | Val | Leu |

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Pro Gly Ser Ala Ala Thr Ala Thr Ser Lys Leu Thr Ile Ile Phe Lys | | | |
| | 100 | 105 | 110 |
| Asn Phe Gln Glu Cys Val Asp Gln Lys Val Tyr Gln Ala Glu Met Asp | | | |
| | 115 | 120 | 125 |
| Glu Leu Pro Ala Ala Phe Val Asp Gly Ser Lys Asn Gly Gly Asp Lys | | | |
| | 130 | 135 | 140 |
| His Gly Ala Asn Ser Leu Lys Ile Thr Glu Lys Val Ser Gly Gln His | | | |
| 145 | 150 | 155 | 160 |
| Val Glu Ile Gln Ala Lys Tyr Ile Gly Thr Thr Ile Val Val Arg Gln | | | |
| | 165 | 170 | 175 |
| Val Gly Arg Tyr Leu Thr Phe Ala Val Arg Met Pro Glu Glu Val Val | | | |
| | 180 | 185 | 190 |
| Asn Ala Val Glu Asp Trp Asp Ser Gln Gly Leu Tyr Leu Cys Leu Arg | | | |
| | 195 | 200 | 205 |
| Gly Cys Pro Leu Asn Gln Gln Ile Asp Phe Gln Ala Phe His Thr Asn | | | |
| | 210 | 215 | 220 |
| Ala Glu Gly Thr Gly Ala Arg Arg Leu Ala Ala Ala Ser Pro Ala Pro | | | |
| 225 | 230 | 235 | 240 |
| Thr Ala Pro Glu Thr Phe Pro Tyr Glu Thr Ala Val Ala Lys Cys Lys | | | |
| | 245 | 250 | 255 |
| Glu Lys Leu Pro Val Glu Asp Leu Tyr Tyr Gln Ala Cys Val Phe Asp | | | |
| | 260 | 265 | 270 |
| Leu Arg Thr Thr Gly Asp Val Asn Phe Thr Leu Ala Ala Tyr Tyr Ala | | | |
| | 275 | 280 | 285 |
| Leu Glu Asp Val Lys Met Leu His Ser Asn Lys Asp Lys Leu His Leu | | | |
| | 290 | 295 | 300 |
| Tyr Glu Arg Thr Arg Asp Leu Pro Gly Arg Ala Ala Ala Gly Leu Pro | | | |
| 305 | 310 | 315 | 320 |
| Leu Ala Pro Arg Pro Leu Leu Gly Ala Leu Val Pro Leu Leu Ala Leu | | | |
| | 325 | 330 | 335 |
| Leu Pro Val Phe Arg | | | |
| | 340 | | |

<211> 135

<212> PRT

<213> Homo sapiens

<400> 3003

```

Met Glu Val Thr Arg Gln His Pro Arg His Pro Tyr Pro Lys Val Gly
 1             5             10             15
Ser Arg Ile Pro Ser Thr Arg Lys Cys His Ser Pro Pro Pro Pro Pro
      20             25             30
Ser Gly Thr Leu Thr Gly Ala Glu Cys Gly Gly Gly Arg Gly Arg Glu
      35             40             45
Arg Arg Gly Gly Gly Thr Arg His Thr His His Ala Glu Asn Cys Phe
      50             55             60
Thr Ala Phe Leu Lys Val Phe Lys Met Gln Phe Leu Gln Pro Glu Asn
      65             70             75             80
Ser His Pro Phe Thr Ser Pro Ser Pro His Pro Ala Pro His Pro His
      85             90             95
Arg Gly Leu Arg Trp Ala Val Ser Pro Arg Arg Pro Arg Pro His Ala
      100            105            110
Pro Arg Arg Ala Ala Pro Gly Gly Gly Val Pro Asp Ala Ala Gln Leu
      115            120            125
Gly Met Leu Arg Thr Cys Met
      130            135

```

<210> 3004

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3004

```

Met Gly Ser Ser Met Glu His Met Arg Arg Arg Glu Ser Gly Gly Gly
 1             5             10             15
Gly Gly Gly Ala Ser Arg Gly Ala Ala Val Gly Trp Arg Lys Pro Gly
      20             25             30
Gly Arg Val Gln Cys Arg Glu Ser Asn Glu Glu Arg Phe Glu Ala Cys

```


| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Gln Gln Asn Pro Met Leu Gln Arg Gly Leu Gly Met Gly Leu Leu Arg | | |
| 50 | 55 | 60 |
| Ala Leu Leu Thr Val Ser Pro Ser Arg Ala Ala Ser Gly Asp Cys Gly | | |
| 65 | 70 | 75 |
| Asp Cys Trp His Thr Ala Gly Phe Ala Arg Leu Lys Thr Met Gly Gly | | |
| 85 | 90 | 95 |
| Val Glu Asp Leu Leu Thr His Leu Lys Lys Ile Gly Gly Lys Gly Arg | | |
| 100 | 105 | 110 |
| Ile Glu Ser Val Ser Asp Arg Lys Arg Ile Ile Cys | | |
| 115 | 120 | |

<210> 3005

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3005

| | | |
|---|-----|-----|
| Met Pro Ala Asn Gly Glu Thr Val Thr Leu Pro Thr Ser Pro Ser Ile | | |
| 1 | 5 | 10 |
| Pro Val Gly Ile Ser Leu Gly Leu Leu Lys Arg Glu Met Ala Gln Gly | | |
| 20 | 25 | 30 |
| Leu Leu Pro Glu Ala Lys Lys Pro Arg Leu Leu His Gly Thr Leu Ile | | |
| 35 | 40 | 45 |
| Met Lys Asp Ser Val Ser Ala Arg Thr Val Ser Gly Gly Gly Arg Ala | | |
| 50 | 55 | 60 |
| Ala Ala Ala Leu Thr Asp Leu Ser Leu Pro His Arg Thr Ser Gly Trp | | |
| 65 | 70 | 75 |
| Cys Pro Gln Ser Lys Pro Ser Lys Ser Trp Val Trp Leu Ser Thr Ser | | |
| 85 | 90 | 95 |
| Cys Ala Ser Pro Ala Ala Cys Thr Cys Met Thr His Ala Arg Ser Arg | | |
| 100 | 105 | 110 |
| Arg Arg His Cys Ala Ser Thr Ala Thr Ser Arg Ala Ser | | |
| 115 | 120 | 125 |

<210> 3006

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3006

```

Met His Asn Ala Glu His Tyr Ser Ser Val Tyr Ala Ser Ser Ser Cys
  1             5             10             15
Ser Met Asp Ser Leu Ala Ser Ser Leu Asp Glu Gly Asp Thr Thr Ser
      20             25             30
Leu Leu Lys Leu Gln Arg Tyr Asn Ser Tyr Asp Ile Ser Arg Asp Thr
      35             40             45
Leu Tyr Val Ser Lys Ser Ile Cys Leu Ile Thr Pro Leu Pro Phe Met
      50             55             60
Gln Ala Cys Lys Lys Phe Leu Ile Gln Leu Tyr Lys Ala Val Thr Ser
      65             70             75             80
Gln Gln Pro Pro Pro Leu Pro Leu Glu Ser Tyr Ile His Asn Ile Leu
      85             90             95
Tyr Glu Val Pro Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Tyr Gly
      100            105            110
Val Tyr Glu Pro Val Ile Cys Gln Arg Pro Gly Pro Ser Glu Leu Pro
      115            120            125
Leu Ser Asp Tyr Pro Leu Arg Glu Ala Phe Glu Leu Leu Gly Leu Glu
      130            135            140
Asn Leu Val Gln Val Phe Thr Cys Val Leu Leu Glu Met Gln Ile Leu
      145            150            155            160
Leu Tyr Ser Gln Asp Tyr Gln Arg Leu Met Thr Val Ala Glu Gly Ile
      165            170            175
Thr Thr Leu Leu Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile
      180            185            190
Leu Pro Ala Ser Leu Leu His Phe Leu Asp Ala Pro Val Pro Tyr Leu
      195            200            205
Met Gly Leu Gln Ser Lys Glu Gly Thr Asp Arg Ser Lys Leu Glu Leu
      210            215            220
Pro Gln Gly Ala Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile

```

225 230 235 240
 Glu Leu Pro Glu Glu Phe Pro Gln Phe Pro Asn Lys Val Asp Phe Ile
 245 250 255
 Gln Glu Leu Ser Glu Val Leu Val Gln Phe Gly Ile Pro Pro Glu Gly
 260 265 270
 Ser Leu His Cys Ser Glu Ser Thr Ser Lys Leu Lys Asn Met Val Leu
 275 280 285
 Lys Asp Leu Val Asn Asp Lys Lys Asn Gly Asn Val Cys Thr Asn Asn
 290 295 300
 Ile Ser Met Tyr Glu Leu Leu
 305 310

<210> 3007

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3007

Met Gly Gln Gly Thr Gly Lys Leu Pro Pro Pro His Leu Ile Ser Asp
 1 5 10 15
 Leu Pro Pro Gln Cys Pro Met Cys Asp Pro Ala Ile Phe Ser Lys Leu
 20 25 30
 Asn Ser Val Thr Arg Ala Thr Gly Leu Ala Pro Ser Pro Ser Lys Asp
 35 40 45
 Ser Glu Gly Ala Ser Phe Ser His Leu Leu Ile Ile Phe His Phe Ser
 50 55 60
 Arg Gln Pro Thr Gln Lys Ala Trp Thr Arg Trp Trp Arg Cys Trp Gly
 65 70 75 80
 Ser Tyr Thr Glu Ala Leu Phe Ser Val Cys Ser Leu Pro Gly Gln Ile
 85 90 95
 Arg Lys Leu Arg His Arg Lys Val Thr Gln Asp Tyr Arg Gly Gln His
 100 105 110
 Arg Glu Gln Trp Asn Leu His Leu Thr Pro Gly Arg Arg Asn Leu His
 115 120 125
 Asp His Ser Thr Pro Pro Gln Gly Thr Gly Arg Glu Asn Asn Gly Ser

| | | | | | |
|---|-----|-----|-----|--|--|
| 130 | 135 | 140 | | | |
| Ser Arg Thr Lys Val Thr Phe Pro Arg Val Ser Cys Cys Leu Asp Leu | | | | | |
| 145 | 150 | 155 | 160 | | |
| Ala Ala Val Ser Val Leu Pro Arg Arg Gly Ile Ser Met Ser Ser Gly | | | | | |
| | 165 | 170 | 175 | | |
| Gln Trp Gln Arg Gly Arg Gly Ala Pro Leu Gln Cys Ala Gly Trp Ser | | | | | |
| | 180 | 185 | 190 | | |
| Ala Gly Ser Cys Gln Cys Glu Asp Leu Gln Gln Leu Val Tyr Pro Trp | | | | | |
| | 195 | 200 | 205 | | |
| Ser Cys His Gln Leu Pro Glu Phe Gly Ala Ala Gly Ala Thr Leu Val | | | | | |
| 210 | 215 | 220 | | | |
| Val Leu Pro Cys Arg Gly Ser Ser Cys Leu Leu Val Ser Glu Ser Gln | | | | | |
| 225 | 230 | 235 | 240 | | |
| Leu Trp Gly Cys Asn Leu Lys Pro Lys Ala | | | | | |
| | 245 | 250 | | | |

<210> 3008

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3008

| | | | |
|---|----|----|----|
| Met Gly Lys Gly Leu Tyr Trp Ala Cys Trp Gly Ala Val Pro Leu Pro | | | |
| 1 | 5 | 10 | 15 |
| Ser Trp Val His His Gly Trp Arg Ala Cys Gly Trp Val Ala Leu Ala | | | |
| | 20 | 25 | 30 |
| Gly Ile Leu Arg Ala Cys Arg Leu Pro Ser Ala Leu Gln Pro Ser Pro | | | |
| | 35 | 40 | 45 |
| Ala Pro Leu Phe Phe Lys Gly Val Leu Leu Leu Gly Glu Pro Val Arg | | | |
| | 50 | 55 | 60 |
| Trp Glu Thr Ser Leu Gln Leu Ile Met Asp Val Leu Leu Ser Asn Gly | | | |
| 65 | 70 | 75 | 80 |
| Ser Pro Gly Ala Gly Leu Ala Thr Pro Pro Tyr Pro His Leu Pro Val | | | |
| | 85 | 90 | 95 |
| Leu Ala Ser Asn Met Asp Leu Leu Trp Met Ala Glu Ala Lys Met Pro | | | |

| | | | |
|---|-----|-----|-----|
| 100 | 105 | 110 | |
| Arg Phe Gly His Gly Thr Phe Leu Leu Cys Leu Glu Thr Ile Tyr Gln | | | |
| 115 | 120 | 125 | |
| Lys Val Thr Gly Lys Glu Leu Arg Tyr Glu Gly Leu Met Gly Lys Pro | | | |
| 130 | 135 | 140 | |
| Ser Ile Leu Thr Tyr Gln Tyr Ala Glu Asp Leu Ile Arg Arg Gln Ala | | | |
| 145 | 150 | 155 | 160 |
| Glu Arg Arg Gly Trp Ala Ala Pro Ile Arg Lys Leu Tyr Ala Val Gly | | | |
| 165 | 170 | 175 | |
| Asp Asn Pro Met Ser Asp Val Tyr Gly Ala Asn Leu Phe His Gln Tyr | | | |
| 180 | 185 | 190 | |
| Leu Gln Lys Ala Thr His Asp Gly Ala Pro Glu Leu Gly Ala Gly Gly | | | |
| 195 | 200 | 205 | |
| Thr Arg Gln Gln Gln Pro Ser Ala Ser Gln Ser Cys Ile Ser Ile Leu | | | |
| 210 | 215 | 220 | |
| Val Cys Thr Gly Val Tyr Asn Pro Arg Asn Pro Gln Ser Thr Glu Pro | | | |
| 225 | 230 | 235 | 240 |
| Val Leu Gly Gly Gly Glu Pro Pro Phe His Gly His Arg Asp Leu Cys | | | |
| 245 | 250 | 255 | |
| Phe Ser Pro Gly Leu Met Glu Ala Ser His Val Val Asn Asp Val Asn | | | |
| 260 | 265 | 270 | |
| Glu Ala Val Gln Leu Val Phe Arg Lys Glu Gly Trp Ala Leu Glu | | | |
| 275 | 280 | 285 | |

<210> 3009

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3009

| |
|---|
| Met His Ser Gln Gly Lys Phe Leu Val Phe Phe Ser Gly Phe Lys Leu |
| 1 5 10 15 |
| Ala Ala Leu Val Ser Cys Leu His Met Cys Val Cys Leu Phe Leu Phe |
| 20 25 30 |
| Ser Phe Cys Ser Phe Ser Phe Leu Val Trp Arg Phe Ser Asn Thr Asn |

35 40 45
 Lys Cys Arg Glu Asn Ile Ala Met Asn Ser Met Tyr Ser Ser Pro Asp
 50 55 60
 Phe Ser Asn His Gln Leu Tyr Ala Asn Leu Val Ser Ser Ile Thr Ser
 65 70 75 80
 Leu Pro Leu Phe Cys Gly Ser Ile Leu Lys Gln Asn Pro Asn Ile Ile
 85 90 95
 Thr Phe His Leu Gly Val Pro Gln His Phe Pro Leu Thr Asp Glu Asp
 100 105 110
 Phe Lys Met
 115

<210> 3010

<211> 528

<212> PRT

<213> Homo sapiens

<400> 3010

Met Gly Asp Ala Pro Ser Pro Glu Glu Lys Leu His Leu Ile Thr Arg
 1 5 10 15
 Asn Leu Gln Glu Val Leu Gly Glu Glu Lys Leu Lys Glu Ile Leu Lys
 20 25 30
 Glu Arg Glu Leu Lys Ile Tyr Trp Gly Thr Ala Thr Thr Gly Lys Pro
 35 40 45
 His Val Ala Tyr Phe Val Pro Met Ser Lys Ile Ala Asp Phe Leu Lys
 50 55 60
 Ala Gly Cys Glu Val Thr Ile Leu Phe Ala Asp Leu His Ala Tyr Leu
 65 70 75 80
 Asp Asn Met Lys Ala Pro Trp Glu Leu Leu Glu Leu Arg Val Ser Tyr
 85 90 95
 Tyr Glu Asn Val Ile Lys Ala Met Leu Glu Ser Ile Gly Val Pro Leu
 100 105 110
 Glu Lys Leu Lys Phe Ile Lys Gly Thr Asp Tyr Gln Leu Ser Lys Glu
 115 120 125

Tyr Thr Leu Asp Val Tyr Arg Leu Ser Ser Val Val Thr Gln His Asp
 130 135 140
 Ser Lys Lys Ala Gly Ala Glu Val Val Lys Gln Val Glu His Pro Leu
 145 150 155 160
 Leu Ser Gly Leu Leu Tyr Pro Gly Leu Gln Ala Leu Asp Glu Glu Tyr
 165 170 175
 Leu Lys Val Asp Ala Gln Phe Gly Gly Ile Asp Gln Arg Lys Ile Phe
 180 185 190
 Thr Phe Ala Glu Lys Tyr Leu Pro Ala Leu Gly Tyr Ser Lys Arg Val
 195 200 205
 His Leu Met Asn Pro Met Val Pro Gly Leu Thr Gly Ser Lys Met Ser
 210 215 220
 Ser Ser Glu Glu Glu Ser Lys Ile Asp Leu Leu Asp Arg Lys Glu Asp
 225 230 235 240
 Val Lys Lys Lys Leu Lys Lys Ala Phe Cys Glu Pro Gly Asn Val Glu
 245 250 255
 Asn Asn Gly Val Leu Ser Phe Ile Lys His Val Leu Phe Pro Leu Lys
 260 265 270
 Ser Glu Phe Val Ile Leu Arg Asp Glu Lys Trp Gly Gly Asn Lys Thr
 275 280 285
 Tyr Thr Ala Tyr Val Asp Leu Glu Lys Asp Phe Ala Ala Glu Val Val
 290 295 300
 His Pro Gly Asp Leu Lys Asn Ser Val Glu Val Ala Leu Asn Lys Leu
 305 310 315 320
 Leu Asp Pro Ile Arg Glu Lys Phe Asn Thr Pro Ala Leu Lys Lys Leu
 325 330 335
 Ala Ser Ala Ala Tyr Pro Asp Pro Ser Lys Gln Lys Pro Met Ala Lys
 340 345 350
 Gly Pro Ala Lys Asn Ser Glu Pro Glu Glu Val Ile Pro Ser Arg Leu
 355 360 365
 Asp Ile Arg Val Gly Lys Ile Ile Thr Val Glu Lys His Pro Asp Ala
 370 375 380
 Asp Ser Leu Tyr Val Glu Lys Ile Asp Val Gly Glu Ala Glu Pro Arg
 385 390 395 400
 Thr Val Val Ser Gly Leu Val Gln Phe Val Pro Lys Glu Glu Leu Gln
 405 410 415

Asp Arg Leu Val Val Val Leu Cys Asn Leu Lys Pro Gln Lys Met Arg
 420 425 430
 Gly Val Glu Ser Gln Gly Met Leu Leu Cys Ala Ser Ile Glu Gly Ile
 435 440 445
 Asn Arg Gln Val Glu Pro Leu Asp Pro Pro Ala Gly Ser Ala Pro Gly
 450 455 460

Glu His Val Phe Val Lys Gly Tyr Glu Lys Gly Gln Pro Asp Glu Glu
 465 470 475 480
 Leu Lys Pro Lys Lys Lys Val Phe Glu Lys Leu Gln Ala Asp Phe Lys
 485 490 495
 Ile Ser Glu Glu Cys Ile Ala Gln Trp Lys Gln Thr Asn Phe Met Thr
 500 505 510
 Lys Leu Gly Ser Ile Ser Cys Lys Ser Leu Lys Gly Gly Asn Ile Ser
 515 520 525

<210> 3011

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3011

Met Pro Leu Thr Gly Thr Asn His Asp Arg Gln Gly His Leu Leu Arg
 1 5 10 15
 Ser Gly Thr Thr Tyr Tyr Leu Leu Ala Met Gly Ala Asn Phe Thr Val
 20 25 30
 Phe Leu Gln Tyr Leu Val Phe Pro Ile Phe Gly Phe Leu Leu Ile Ile
 35 40 45
 Ser His Pro Ser Gln Pro Leu Phe Ser Ser Pro Pro Leu Cys Leu Gln
 50 55 60
 His Pro Ile Leu Pro Ser Leu Pro Phe Asn Leu Pro Ile Leu Phe Phe
 65 70 75 80
 Pro Leu Lys Ser His Met Ile Leu Gln Ser Ser Phe Val Phe Pro Lys
 85 90 95
 Lys Lys Lys Asn Phe Phe Phe Phe Lys Glu Pro Phe Leu Asp Ser

100

105

110

<210> 3012

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3012

```

Met Trp Gly Arg Ser Ser Gly Glu Gly Gln Ser Leu Leu Pro Val Glu
  1             5             10            15
Arg Lys Trp Ala Leu Glu Lys Leu His Glu Ser Ser Pro Ala Glu Gly
      20             25            30
Pro Glu Val His Ile Ser Gly Ala Arg Val Gly Leu Met Val Thr Leu
      35             40            45
Ala Gly Asp Ala Lys Ser Thr Gly Val Arg Pro Gly Gln Val Leu Val
      50             55            60
Cys Glu Trp Ala Ser Phe Ser Arg Leu Ala His Arg Lys Arg Val Ala
      65             70            75            80
Trp Leu Ala Phe Pro Leu Lys Leu Arg Thr Glu Ala Gln Asp Met Ser
      85             90            95
His Thr Ile Asp Met Ser Trp Gly Gln Met Gly Gly Arg Cys Ala Gln
      100            105            110
Ser Gly Cys Ile Asp Thr
      115

```

<210> 3013

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3013

```

Met Gly Gly Pro Gly Gln Arg Gly Thr Gln Gln Arg Cys Pro Pro Ser
  1             5             10            15
Ser Leu Ser Ser Leu Ala Gly Ile Thr Gly Pro Ser Ala Glu Pro Thr

```

20 25 30
 Pro Arg Thr Cys Ser Gly Cys Ala Lys Arg Pro Ala Thr Trp Cys Ala
 35 40 45
 Thr Val Arg Pro Ala Arg Met Thr Ser Pro Ser Pro Ser Ser Glu Trp
 50 55 60
 Gly Gln Leu Trp Phe Gln Gly Gln Gln Ala Gly Trp Lys Gly Thr Pro
 65 70 75 80
 Val Phe Pro Leu Cys Pro Thr Lys Leu Gly Arg Ser Pro Ser Pro Met
 85 90 95
 Asn Asn Pro Gln Ala Leu Gly Val Leu Arg Cys Leu Arg Leu Ser Pro
 100 105 110
 Cys Ser Gln Gly Ala Gln Ser Pro Leu Gly Glu Ile Val Asp Pro Gln
 115 120 125
 His Pro Ala Gln Lys Gly Ser Val Leu Val Val Trp Pro Gly Pro Leu
 130 135 140
 Asn Leu Ser Arg Pro Gln Phe Pro Tyr
 145 150

<210> 3014

<211> 329

<212> PRT

<213> Homo sapiens

<400> 3014

Met Lys Phe Ser Ser Cys Leu Asn Arg Gly Ala Lys Pro Asp Glu Ile
 1 5 10 15
 Asn Gly Arg Lys Lys Met Pro Ala Ile Leu Phe Gln Glu Arg His Gly
 20 25 30
 Leu Lys Gly Glu Arg Thr Thr Val Thr Arg Gly Arg Phe Arg Pro His
 35 40 45
 Arg Ala Ala Arg Ala Gly Lys Leu Cys Arg Gly Arg Phe Arg Gly Gln
 50 55 60
 Ser Gln Gly Gly Gly Pro Arg His Arg Arg Val Phe Gln Ala Gly Pro
 65 70 75 80
 Gly Pro Gly Gln Arg Gly Ile Thr Arg Pro Val Leu Cys Ser Gln Asp

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Glu Gly Arg Gly Gln Thr Phe Ser Pro Arg Pro Ser Arg Gln Gly Trp | | | |
| | 100 | 105 | 110 |
| Ala Val Pro Val Gly Ala Trp Glu Arg Arg Arg Arg Ala His Phe Gln | | | |
| | 115 | 120 | 125 |
| His Gln Val Arg Glu Gly His Asp Ala Gln Pro Leu Glu Pro Leu Ala | | | |
| | 130 | 135 | 140 |
| Cys Val Pro His Pro Asp Phe Leu Ala Ser Gly Glu Arg Pro Leu Arg | | | |
| 145 | 150 | 155 | 160 |
| Arg Val Gly Val Ala Arg Gly Ser Ala Glu Glu Ser Trp Gly Gln Arg | | | |
| | 165 | 170 | 175 |
| Ala Trp Trp Arg Gly Pro Ala Arg Arg Val Pro Gly Ala Arg Gly Arg | | | |
| | 180 | 185 | 190 |
| Pro Gln Asn Pro Gly Arg Val Glu Ala Pro Gly His Ala Pro Gly Trp | | | |
| | 195 | 200 | 205 |
| Trp Ala Ala Arg Asp Gly Ser Gly Asp Pro Ser Pro Glu Glu Gly Arg | | | |
| | 210 | 215 | 220 |
| Gly Leu His Arg Gly Gln Ala Glu Ala Pro Arg Val Pro Cys Gly Phe | | | |
| 225 | 230 | 235 | 240 |
| Arg Pro Ser Pro Leu Ala Pro Thr Pro Arg Ser Gly Arg Asp Ser Ser | | | |
| | 245 | 250 | 255 |
| Pro Gly Ser Ala Gly Gln Ala Gln Val Cys Ala Leu Arg Leu Gln Pro | | | |
| | 260 | 265 | 270 |
| Arg Gln Lys Ser Val Pro Arg Arg Gly Arg Arg Val Arg Val Pro Arg | | | |
| | 275 | 280 | 285 |
| Met Arg Val Gly Leu Pro Pro Ala Gly Thr Ala Glu Leu Arg Arg Gly | | | |
| | 290 | 295 | 300 |
| Ser Arg Cys Ser Arg Ser Ala Ser Gly Arg Gly Arg Leu Ser Ala Leu | | | |
| 305 | 310 | 315 | 320 |
| Gly Gly Glu Ala Gly Gly Pro Leu Gly | | | |
| | 325 | | |

<210> 3015

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3015

Met Gly Ser Ser Lys Gly Leu Trp Lys Glu Lys Pro Ser Ala His Thr
 1 5 10 15
 Ser Glu Cys Phe Ser Thr Thr Ala Cys Pro Val Ala Cys Ile Leu Leu
 20 25 30
 Val Trp Asn Ser Gln Thr Pro Ala Gly Leu Gln Ser Leu Cys Thr Gly
 35 40 45
 Arg His Pro Ser Leu Ser Ala Arg Ala Gln Trp Ala Gly Pro Arg Ala
 50 55 60
 Ser Arg Glu Glu Gly Thr Phe Trp Thr Glu Pro Val Gly Gln Glu Arg
 65 70 75 80
 Arg Leu Ile Arg Ser Gly Ser Ser Gln Asn Glu Ser Gln Glu Asp Gln
 85 90 95
 Gly Ala Asp Leu Ile Ser His Glu Gly Leu Lys Ala Asp Asn Arg Arg
 100 105 110
 Glu Ser Ser Thr Trp Ala Asn Glu Val Glu Asp Arg Arg Pro Gln Cys
 115 120 125
 Thr Ser Ala Leu Asn Leu Thr Pro Ser His Leu His Pro Pro His Pro
 130 135 140
 Leu Thr Thr Phe Phe Arg Asn Val Ile Gly Ile Lys Ile Pro Pro Gly
 145 150 155 160
 Leu Val Ala Met Gly Gly Thr Val Ala
 165

<210> 3016

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3016

Met Arg Gly Ala Ala Gly Ala Ala Gly Ala Ser Ser Arg Glu Asp Gly
 1 5 10 15
 Cys Arg Val Pro Arg Pro Pro Pro Thr Pro Gly Gly Val Pro Ser Ser

20 25 30
 Gln Leu Arg Pro Glu Arg Leu Leu Pro Gly Glu Ser Pro Pro Leu Cys
 35 40 45
 Asn Gln Pro Ala Ala Ala Glu Gly Ala Trp Val Pro Ser Ala Glu Pro
 50 55 60
 Ala Ala His Gly Arg Arg Arg Thr Val Pro Trp Trp Arg Ser Ala Pro
 65 70 75 80
 Ala Thr Arg Leu Ala Thr Pro Gly Arg Gly Pro Gly Gly Arg Gly Trp
 85 90 95
 Asp Leu Gly Ala Leu Arg Val Gly Pro Trp Gly Met Arg Leu Gly Pro
 100 105 110
 Ala Gly Asn Arg Ala Gly Ala Arg Arg Leu Ala Gly Leu Pro Ala Thr
 115 120 125
 Glu Cys Phe Asp Ala Phe Phe Asn Ser Ala Asn Val Ser Leu Ser Thr
 130 135 140
 Leu Ser Pro Ser Ser Ala Gln Arg Thr Val Leu
 145 150 155

<210> 3017

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3017

Met Lys Val Thr Gly Thr Pro Pro Ala Glu Phe Val Gln Arg Leu Gln
 1 5 10 15
 Ser Asp Glu Ala Lys Asn Tyr Met Lys Gly Leu Pro Glu Leu Glu Lys
 20 25 30
 Lys Asp Phe Ala Ser Ile Leu Thr Asn Ala Ser Pro Leu Ala Val Asn
 35 40 45
 Leu Leu Glu Lys Met Leu Val Leu Asp Ala Glu Gln Arg Val Thr Ala
 50 55 60
 Gly Glu Ala Leu Ala His Pro Tyr Phe Glu Ser Leu His Asp Thr Glu
 65 70 75 80
 Asp Glu Pro Gln Val Gln Lys Tyr Asp Asp Ser Phe Asp Asp Val Asp

| | | | | | |
|---|-----|--|-----|--|-----|
| | 85 | | 90 | | 95 |
| Arg Thr Leu Asp Glu Trp Lys Arg Glu Trp Gly Ala Pro Gly Thr Ala | | | | | |
| | 100 | | 105 | | 110 |
| Cys Val Asp Pro Ser Gly Gly Leu Trp Ala Gly Pro Val Trp Thr Arg | | | | | |
| | 115 | | 120 | | 125 |
| Glu Leu Gly Ala Leu Gly Arg Ala Cys Val Asn Pro | | | | | |
| | 130 | | 135 | | 140 |

<210> 3018

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3018

| | | | |
|---|-----|-----|-----|
| Met Leu Ala Arg Arg Asp Leu Gly Leu Val Pro His Gly Val Ser Gly | | | |
| 1 | 5 | 10 | 15 |
| Val Ser Ile Ala Ala Ser Ser Thr Pro Gln Gly Gln Ala Val Cys Ser | | | |
| | 20 | 25 | 30 |
| Pro Ser Val Ala Ala Pro Ser Thr Leu Leu Leu Leu Arg Thr His Leu | | | |
| | 35 | 40 | 45 |
| Leu Gly Ala Ala Ser Leu Gln Gly Cys Gly Val Leu His Ile Leu Pro | | | |
| | 50 | 55 | 60 |
| Ile Phe Leu Phe Ser Lys Gly Cys Arg Arg Asp Ala Gln Cys Ala Cys | | | |
| | 65 | 70 | 75 |
| Thr Val Gly Pro Ser Ala Ser Pro Arg Ser Gly Arg Gly Pro Gly Arg | | | |
| | 85 | 90 | 95 |
| Gly Gly Gly Arg Arg Pro Arg Leu Gly Ala Ala Arg Ser Gly Cys Pro | | | |
| | 100 | 105 | 110 |
| Gly Ala Ala Ala Ala Gly Gly Pro Ala Val Leu His Pro Trp Arg Arg | | | |
| | 115 | 120 | 125 |
| Ala Gly Gly Arg Val Arg Gly Ala Ser Pro Pro Gln Gly Pro Gln Thr | | | |
| | 130 | 135 | 140 |
| Ala Arg Gly Phe Pro Leu Pro Ser Arg Trp Ser Ser Ser Pro Ile Pro | | | |
| | 145 | 150 | 155 |
| Gly Cys Ile Ser Ile Tyr Pro Ser Pro Ile Ser Phe Ala His Pro Gly | | | |

165 170 175
 Ser Leu Ala Pro Leu Gly Ser Pro Phe Pro Ser Pro Gly Pro Pro Ser
 180 185 190
 Arg Ser Arg Leu Leu Cys Pro Gly Leu Arg Arg Gly Leu Thr Pro Gly
 195 200 205
 Arg Trp Phe Arg Pro Asp Leu Gly Ser Leu Val Thr Pro Arg Leu Leu
 210 215 220
 Pro Leu Pro Asn Ser Gly Glu Pro Gly Ile Lys Pro Cys Ala Phe Leu
 225 230 235 240
 Phe Phe Leu Leu Arg Ala Glu Ser Thr Leu His Val Cys Gln Gly Ile
 245 250 255
 Ser Ser Glu Ser Glu Arg Arg Thr Arg Ser Phe Phe Phe Phe Pro Arg
 260 265 270
 Ser Cys Leu Leu
 275

<210> 3019

<211> 520

<212> PRT

<213> Homo sapiens

<400> 3019

Met Ser Pro Pro Lys Asp Pro Ser Pro Ser Leu Pro Leu Pro Ser Ser
 1 5 10 15
 Ser Ser His Ser Ser Ser Pro Pro Ser Ser Ser Ser Thr Ser Val Ser
 20 25 30
 Gly Asn Ala Pro Asp Gly Ser Ser Pro Pro Gln Met Thr Ala Ser Glu
 35 40 45
 Pro Leu Ser Gln Val Ser Arg Gly His Pro Ser Pro Pro Thr Pro Asn
 50 55 60
 Phe Arg Arg Arg Ala Ile Ala Gln Gly Ala Pro Arg Glu Ile Pro Leu
 65 70 75 80
 Tyr Leu Pro His His Pro Lys Pro Glu Trp Ala Glu Tyr Cys Leu Val
 85 90 95
 Ser Pro Gly Glu Asp Gly Leu Ser Asp Pro Ala Glu Met Thr Ser Asp

| | | | |
|---|-----|-----|-----|
| 100 | 105 | 110 | |
| Glu Cys Gln Pro Ala Glu Ala Pro Leu Gly Asp Ile Gly Ser Asn His | | | |
| 115 | 120 | 125 | |
| Arg Asp Pro His Pro Ile Trp Gly Lys Asp Arg Ser Trp Thr Gly Gln | | | |
| 130 | 135 | 140 | |
| Glu Leu Ser Pro Leu Ala Gly Glu Asp Arg Glu Lys Gly Ser Thr Gly | | | |
| 145 | 150 | 155 | 160 |
| Ala Arg Lys Glu Glu Glu Gly Gly Pro Val Leu Val Lys Glu Lys Leu | | | |
| 165 | 170 | 175 | |
| Gly Leu Lys Lys Leu Val Leu Thr Gln Glu Gln Lys Thr Met Leu Leu | | | |
| 180 | 185 | 190 | |
| Asp Trp Asn Asp Ser Ile Pro Glu Ser Val His Leu Lys Ala Gly Glu | | | |
| 195 | 200 | 205 | |
| Arg Ile Ser Gln Lys Ser Ala Glu Asn Gly Arg Gly Gly Arg Val Leu | | | |
| 210 | 215 | 220 | |
| Lys Pro Val Arg Pro Leu Leu Leu Pro Arg Ala Ala Gly Glu Pro Leu | | | |
| 225 | 230 | 235 | 240 |
| Pro Thr Gln Arg Gly Ala Gln Glu Lys Met Gly Thr Pro Ala Glu Gln | | | |
| 245 | 250 | 255 | |
| Ala Gln Gly Glu Arg Asn Val Pro Pro Pro Lys Ser Pro Leu Arg Leu | | | |
| 260 | 265 | 270 | |
| Ile Ala Asn Ala Ile Arg Arg Ser Leu Glu Pro Leu Leu Ser Asn Ser | | | |
| 275 | 280 | 285 | |
| Glu Gly Gly Lys Lys Ala Trp Ala Lys Gln Glu Ser Lys Thr Leu Pro | | | |
| 290 | 295 | 300 | |
| Thr Gln Ala Cys Thr Arg Ser Phe Gly Leu Arg Lys Thr Asn Ser Asn | | | |
| 305 | 310 | 315 | 320 |
| Lys Asp Gly Asp Gln His Ser Pro Gly Arg Asn Gln Ser Ser Ala Phe | | | |
| 325 | 330 | 335 | |
| Ser Pro Pro Asp Pro Ala Leu Arg Thr His Ser Leu Pro Asn Arg Pro | | | |
| 340 | 345 | 350 | |
| Ser Lys Val Phe Pro Ala Leu Arg Ser Pro Pro Cys Ser Lys Ile Glu | | | |
| 355 | 360 | 365 | |
| Asp Val Pro Thr Leu Leu Glu Lys Val Ser Leu Gln Glu Asn Phe Pro | | | |
| 370 | 375 | 380 | |
| Asp Ala Ser Lys Pro Pro Lys Lys Arg Ile Ser Leu Phe Ser Ser Leu | | | |

385 390 395 400
 Arg Leu Lys Asp Lys Ser Phe Glu Ser Phe Leu Gln Glu Ser Arg Gln
 405 410 415
 Arg Lys Asp Ile Arg Asp Leu Phe Gly Ser Pro Lys Arg Lys Val Leu
 420 425 430
 Pro Glu Asp Ser Ala Gln Ala Leu Glu Lys Leu Leu Gln Pro Phe Lys
 435 440 445
 Ser Thr Ser Leu Arg Gln Ala Ala Pro Pro Pro Pro Pro Pro Pro Pro
 450 455 460
 Pro Pro Pro Pro Pro Pro Pro Thr Ala Gly Gly Ala Asp Ser Lys Asn
 465 470 475 480
 Phe Pro Leu Arg Ala Gln Val Thr Glu Ala Ser Ser Ser Ala Ser Ser
 485 490 495
 Thr Ser Ser Ser Ser Ala Asp Glu Glu Phe Asp Pro Gln Leu Ser Leu
 500 505 510
 Gln Leu Lys Glu Lys Lys Thr Leu
 515 520

<210> 3020

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3020

Met Gly Pro Glu Gly Ala Leu Cys Val Tyr Val Gly Gly Gly Gly Ala
 1 5 10 15
 Val Leu Ala Ala Ser Val Leu Cys Val Thr Leu Pro Ser Lys Gly Pro
 20 25 30
 Val Leu Ser Val Pro Arg Glu Pro Gln Pro Lys Leu Arg Arg Glu Gly
 35 40 45
 Gly Glu Gly Cys Gly Met Ala Val Gly His Ser Val Ala Asp Cys Ser
 50 55 60
 Val Ser Ala Gly Ser Phe Leu Gly Thr Trp Lys Ala Ser Val Ala Ser
 65 70 75 80
 Pro Ser Leu Pro Phe Thr Ala Gly Ser Leu Ser Ala Ser Pro Met Pro

85 90 95
 Tyr Ala Trp Ala His Cys His Arg Ile Cys Asn Met Cys Gly
 100 105 110

<210> 3021

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3021

Met Leu Glu Phe Gln Glu Leu Met Thr Val Phe Gln Leu Leu His Trp
 1 5 10 15
 Asn Gly Ser Leu Lys Ala Met Arg Glu Arg Gln Cys Ser Arg Gln Glu
 20 25 30
 Val Leu Ala His Tyr Ser His Arg Ala Leu Asp Asp Asp Ile Arg His
 35 40 45
 Gln Met Ala Leu Asp Trp Val Ser Arg Glu Gln Ser Val Pro Gly Ala
 50 55 60
 Leu Ser Arg Glu Leu Ala Ser Thr Glu Arg Glu Leu Asp Glu Ala Arg
 65 70 75 80
 Leu Ala Gly Lys Glu Leu Arg Phe His Lys Glu Lys Lys Asp Ile Leu
 85 90 95
 Val Leu Ala Ala Gly Gln Leu Gly Asn Met His Ser Ser Asn Cys
 100 105 110

<210> 3022

<211> 723

<212> PRT

<213> Homo sapiens

<400> 3022

Met Ala Glu Glu Glu Gly Pro Pro Val Glu Leu Arg Gln Arg Lys Lys
 1 5 10 15
 Pro Lys Ser Ser Glu Asn Lys Glu Ser Ala Lys Glu Glu Lys Ile Ser

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Asp Ile Pro Ile Pro Glu Arg Ala Pro Lys His Val Leu Phe Gln Arg | | |
| 35 | 40 | 45 |
| Phe Ala Lys Ile Phe Ile Gly Cys Leu Ala Ala Val Thr Ser Gly Met | | |
| 50 | 55 | 60 |
| Met Tyr Ala Leu Tyr Leu Ser Ala Tyr His Glu Arg Lys Phe Trp Phe | | |
| 65 | 70 | 75 |
| Ser Asn Arg Gln Glu Leu Glu Arg Glu Ile Thr Phe Gln Gly Asp Ser | | |
| 85 | 90 | 95 |
| Ala Ile Tyr Tyr Ser Tyr Tyr Lys Asp Met Leu Lys Ala Pro Ser Phe | | |
| 100 | 105 | 110 |
| Glu Arg Gly Val Tyr Glu Leu Thr His Asn Asn Lys Thr Val Ser Leu | | |
| 115 | 120 | 125 |
| Lys Thr Ile Asn Ala Val Gln Gln Met Ser Leu Tyr Pro Glu Leu Ile | | |
| 130 | 135 | 140 |
| Ala Ser Ile Leu Tyr Gln Ala Thr Gly Ser Asn Glu Ile Ile Glu Pro | | |
| 145 | 150 | 155 |
| Val Tyr Phe Tyr Ile Gly Ile Val Phe Gly Leu Gln Gly Ile Tyr Val | | |
| 165 | 170 | 175 |
| Thr Ala Leu Phe Val Thr Ser Trp Leu Met Ser Gly Thr Trp Leu Ala | | |
| 180 | 185 | 190 |
| Gly Met Leu Thr Val Ala Trp Phe Val Ile Asn Arg Val Asp Thr Thr | | |
| 195 | 200 | 205 |
| Arg Ile Glu Tyr Ser Ile Pro Leu Arg Glu Asn Trp Ala Leu Pro Tyr | | |
| 210 | 215 | 220 |
| Phe Ala Cys Gln Ile Ala Ala Leu Thr Gly Tyr Leu Lys Ser Asn Leu | | |
| 225 | 230 | 235 |
| Asn Thr Tyr Gly Glu Arg Phe Cys Tyr Leu Leu Met Ser Ala Ser Thr | | |
| 245 | 250 | 255 |
| Tyr Thr Phe Met Met Met Trp Glu Tyr Ser His Tyr Leu Leu Phe Leu | | |
| 260 | 265 | 270 |
| Gln Ala Ile Ser Leu Phe Leu Leu Asp Thr Phe Ser Val Glu Gln Ser | | |
| 275 | 280 | 285 |
| Asp Lys Val Tyr Glu Val Tyr Lys Ile Tyr Ile Phe Ser Leu Phe Leu | | |
| 290 | 295 | 300 |
| Gly Tyr Leu Leu Gln Phe Glu Asn Pro Ala Leu Leu Val Ser Pro Leu | | |

| | | | |
|---|-----|-----|-----|
| 305 | 310 | 315 | 320 |
| Leu Ser Leu Val Ala Ala Leu Met Leu Ala Lys Cys Leu Gln Leu Asn | | | |
| | 325 | 330 | 335 |
| Val Lys Lys Gly Ser Phe Val Ala Lys Ile Ile Lys Val Ile Asn Phe | | | |
| | 340 | 345 | 350 |
| Tyr Leu Val Cys Thr Leu Thr Ile Thr Leu Asn Ile Ile Met Lys Met | | | |
| | 355 | 360 | 365 |
| Phe Val Pro His Lys Glu Asn Gly His Met Leu Lys Phe Leu Glu Val | | | |
| | 370 | 375 | 380 |
| Lys Phe Gly Leu Asn Met Thr Lys Asn Phe Thr Met Asn Trp Leu Leu | | | |
| 385 | 390 | 395 | 400 |
| Cys Gln Glu Ser Leu Gln Ala Pro Ser Gln Asp Phe Phe Leu Arg Leu | | | |
| | 405 | 410 | 415 |
| Thr Gln Ser Ser Leu Leu Pro Phe Tyr Ile Leu Val Leu Ile Ile Cys | | | |
| | 420 | 425 | 430 |
| Phe Leu Ser Met Leu Gln Val Ile Phe Arg Arg Ile Asn Gly Lys Ser | | | |
| | 435 | 440 | 445 |
| Leu Lys Glu Thr Val Thr Leu Glu Asp Gly Arg Ile Gly Glu Arg Pro | | | |
| | 450 | 455 | 460 |
| Glu Ile Ile Tyr His Val Ile His Thr Ile Leu Leu Gly Ser Leu Ala | | | |
| 465 | 470 | 475 | 480 |
| Met Val Ile Glu Gly Leu Lys Tyr Ile Trp Ile Pro Tyr Val Cys Met | | | |
| | 485 | 490 | 495 |
| Leu Ala Ala Phe Gly Val Cys Ser Pro Glu Leu Trp Met Thr Leu Phe | | | |
| | 500 | 505 | 510 |
| Lys Trp Leu Arg Leu Arg Thr Val His Pro Ile Leu Leu Ala Leu Ile | | | |
| | 515 | 520 | 525 |
| Leu Ser Met Ala Val Pro Thr Ile Ile Gly Leu Ser Leu Trp Lys Glu | | | |
| | 530 | 535 | 540 |
| Phe Phe Pro Arg Leu Met Thr Glu Leu Met Glu Leu Gln Glu Phe Tyr | | | |
| 545 | 550 | 555 | 560 |
| Asp Pro Asp Thr Val Glu Leu Met Thr Trp Ile Lys Arg Gln Ala Pro | | | |
| | 565 | 570 | 575 |
| Val Ala Ala Val Phe Ala Gly Ser Pro Gln Leu Met Gly Ala Ile Lys | | | |
| | 580 | 585 | 590 |
| Leu Cys Thr Gly Trp Met Val Thr Ser Leu Pro Leu Tyr Asn Asp Asp | | | |

| | | |
|---|-----|-----|
| 595 | 600 | 605 |
| Asp Leu Leu Lys Arg Asn Glu Asn Ile Tyr Gln Ile Tyr Ser Lys Arg | | |
| 610 | 615 | 620 |
| Ser Ala Glu Asp Ile Tyr Lys Ile Leu Thr Ser Tyr Lys Ala Asn Tyr | | |
| 625 | 630 | 635 |
| Leu Ile Val Glu Asp Ala Ile Cys Asn Glu Val Gly Pro Thr Arg Gly | | |
| 645 | 650 | 655 |
| Cys Arg Val Lys Asp Leu Leu Asp Ile Ala Asn Gly His Met Val Cys | | |
| 660 | 665 | 670 |
| Glu Glu Gly Asp Lys Leu Thr Tyr Ser Lys Tyr Gly Arg Phe Cys His | | |
| 675 | 680 | 685 |
| Glu Val Lys Ile Asn Tyr Ser Pro Tyr Val Asn Tyr Phe Thr Arg Val | | |
| 690 | 695 | 700 |
| Tyr Trp Asn Arg Ser Tyr Phe Val Tyr Lys Ile Asn Thr Val Ile Ser | | |
| 705 | 710 | 715 |
| Phe Gln Ser | | 720 |

<210> 3023

<211> 164

<212> PRT

<213> Homo sapiens

<400> 3023

| |
|---|
| Met Gly Val Ser Val Asp Val His Gln Val Tyr Lys Tyr Pro Phe Glu |
| 1 5 10 15 |
| Gln Val Val Ala Ser Phe Leu Arg Lys Tyr Pro Asn Pro Met Asp Lys |
| 20 25 30 |
| Asn Val Ile Ser Val Lys Ile Met Glu Glu Lys Arg Asp Glu Ser Thr |
| 35 40 45 |
| Gly Val Ile Tyr Arg Lys Arg Ile Ala Ile Cys Gln Asn Val Val Pro |
| 50 55 60 |
| Glu Ile Leu Arg Lys Val Ser Ile Leu Lys Val Pro Asn Ile Gln Leu |
| 65 70 75 80 |
| Glu Glu Glu Ser Trp Leu Asn Pro Arg Glu Arg Asn Met Ala Ile Arg |

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Ser His Cys Leu Thr Trp Thr Gln Tyr Ala Ser Met Lys Glu Glu Ser | | | |
| 100 | 105 | 110 | |
| Val Phe Arg Glu Ser Met Glu Asn Pro Asn Trp Thr Glu Phe Ile Gln | | | |
| 115 | 120 | 125 | |
| Arg Gly Arg Ile Ser Ile Thr Gly Val Gly Phe Leu Asn Cys Val Leu | | | |
| 130 | 135 | 140 | |
| Glu Thr Phe Ala Ser Thr Phe Leu Arg Gln Gly Ala Gln Lys Val Thr | | | |
| 145 | 150 | 155 | 160 |
| Ile Phe Leu Leu | | | |

<210> 3024

<211> 735

<212> PRT

<213> Homo sapiens

<400> 3024

| | | | |
|---|-----|-----|----|
| Met Ala Glu Pro Leu Leu Arg Lys Thr Phe Ser Arg Leu Arg Gly Arg | | | |
| 1 | 5 | 10 | 15 |
| Glu Lys Leu Pro Arg Lys Lys Ser Asp Ala Lys Glu Arg Gly His Pro | | | |
| 20 | 25 | 30 | |
| Ala Gln Arg Pro Glu Pro Ser Pro Pro Glu Pro Glu Pro Gln Ala Pro | | | |
| 35 | 40 | 45 | |
| Glu Gly Ser Gln Ala Gly Ala Glu Gly Pro Ser Ser Pro Glu Ala Ser | | | |
| 50 | 55 | 60 | |
| Arg Ser Pro Ala Arg Gly Ala Tyr Leu Gln Ser Leu Glu Pro Ser Ser | | | |
| 65 | 70 | 75 | 80 |
| Arg Arg Trp Val Leu Gly Gly Ala Lys Pro Ala Glu Asp Thr Ser Leu | | | |
| 85 | 90 | 95 | |
| Gly Pro Gly Val Pro Gly Thr Gly Glu Pro Ala Gly Glu Ile Trp Tyr | | | |
| 100 | 105 | 110 | |
| Asn Pro Ile Pro Glu Glu Asp Pro Arg Pro Pro Ala Pro Glu Pro Pro | | | |
| 115 | 120 | 125 | |
| Gly Pro Gln Pro Gly Ser Ala Glu Ser Glu Gly Leu Ala Pro Gln Gly | | | |

| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Ala Ala Pro Ala Ser Pro Pro Thr Lys Ala Ser Arg Thr Lys Ser Pro | | | |
| 145 | 150 | 155 | 160 |
| Gly Pro Ala Arg Arg Leu Ser Ile Lys Met Lys Lys Leu Pro Glu Leu | | | |
| | 165 | 170 | 175 |
| Arg Arg Arg Leu Ser Leu Arg Gly Pro Arg Ala Gly Arg Glu Arg Glu | | | |
| | 180 | 185 | 190 |
| Arg Ala Ala Pro Ala Gly Ser Val Ile Ser Arg Tyr His Leu Asp Ser | | | |
| | 195 | 200 | 205 |
| Ser Val Gly Gly Pro Gly Pro Ala Ala Gly Pro Gly Gly Thr Arg Ser | | | |
| 210 | 215 | 220 | |
| Pro Arg Ala Gly Tyr Leu Ser Asp Gly Asp Ser Pro Glu Arg Pro Ala | | | |
| 225 | 230 | 235 | 240 |
| Gly Pro Pro Ser Pro Thr Ser Phe Arg Pro Tyr Glu Val Gly Pro Ala | | | |
| | 245 | 250 | 255 |
| Ala Arg Ala Pro Pro Ala Ala Leu Trp Gly Arg Leu Ser Leu His Leu | | | |
| | 260 | 265 | 270 |
| Tyr Gly Leu Gly Gly Leu Arg Pro Ala Pro Gly Ala Thr Pro Arg Asp | | | |
| | 275 | 280 | 285 |
| Leu Cys Cys Leu Leu Gln Val Asp Gly Glu Ala Arg Ala Arg Thr Gly | | | |
| 290 | 295 | 300 | |
| Pro Leu Arg Gly Gly Pro Asp Phe Leu Arg Leu Asp His Thr Phe His | | | |
| 305 | 310 | 315 | 320 |
| Leu Glu Leu Glu Ala Ala Arg Leu Leu Arg Ala Leu Val Leu Ala Trp | | | |
| | 325 | 330 | 335 |
| Asp Pro Gly Val Arg Arg His Arg Pro Cys Ala Gln Gly Thr Val Leu | | | |
| | 340 | 345 | 350 |
| Leu Pro Thr Val Phe Arg Gly Cys Gln Ala Gln Gln Leu Ala Val Arg | | | |
| | 355 | 360 | 365 |
| Leu Glu Pro Gln Gly Leu Leu Tyr Ala Lys Leu Thr Leu Ser Glu Gln | | | |
| 370 | 375 | 380 | |
| Gln Glu Ala Pro Ala Thr Ala Glu Pro Arg Val Phe Gly Leu Pro Leu | | | |
| 385 | 390 | 395 | 400 |
| Pro Leu Leu Val Glu Arg Glu Arg Pro Pro Gly Gln Val Pro Leu Ile | | | |
| | 405 | 410 | 415 |
| Ile Gln Lys Cys Val Gly Gln Ile Glu Arg Arg Gly Leu Arg Val Val | | | |

| | | |
|---|-----|-----|
| 420 | 425 | 430 |
| Gly Leu Tyr Arg Leu Cys Gly Ser Ala Ala Val Lys Lys Glu Leu Arg | | |
| 435 | 440 | 445 |
| Asp Ala Phe Glu Arg Asp Ser Ala Ala Val Cys Leu Ser Glu Asp Leu | | |
| 450 | 455 | 460 |
| Tyr Pro Asp Ile Asn Val Ile Thr Gly Ile Leu Lys Asp Tyr Leu Arg | | |
| 465 | 470 | 475 |
| Glu Leu Pro Thr Pro Leu Ile Thr Gln Pro Leu Tyr Lys Val Val Leu | | |
| 485 | 490 | 495 |
| Glu Ala Met Ala Arg Asp Pro Pro Asn Arg Val Pro Pro Thr Thr Glu | | |
| 500 | 505 | 510 |
| Gly Thr Arg Gly Leu Leu Ser Cys Leu Pro Asp Val Glu Arg Ala Thr | | |
| 515 | 520 | 525 |
| Leu Thr Leu Leu Leu Asp His Leu Arg Leu Val Ser Ser Phe His Ala | | |
| 530 | 535 | 540 |
| | | |
| Tyr Asn Arg Met Thr Pro Gln Asn Leu Ala Val Cys Phe Gly Pro Val | | |
| 545 | 550 | 555 |
| Leu Leu Pro Ala Arg Gln Ala Pro Thr Arg Pro Arg Ala Arg Ser Ser | | |
| 565 | 570 | 575 |
| Gly Pro Gly Leu Ala Ser Ala Val Asp Phe Lys His His Ile Glu Val | | |
| 580 | 585 | 590 |
| Leu His Tyr Leu Leu Gln Ser Trp Pro Asp Pro Arg Leu Pro Arg Gln | | |
| 595 | 600 | 605 |
| Ser Pro Asp Val Ala Pro Tyr Leu Arg Pro Lys Arg Gln Pro Pro Leu | | |
| 610 | 615 | 620 |
| His Leu Pro Leu Ala Asp Pro Glu Val Val Thr Arg Pro Arg Gly Arg | | |
| 625 | 630 | 635 |
| Gly Gly Pro Glu Ser Pro Pro Ser Asn Arg Tyr Ala Gly Asp Trp Ser | | |
| 645 | 650 | 655 |
| Val Cys Gly Arg Asp Phe Leu Pro Cys Gly Arg Asp Phe Leu Ser Gly | | |
| 660 | 665 | 670 |
| Pro Asp Tyr Asp His Val Thr Gly Ser Asp Ser Glu Asp Glu Asp Glu | | |
| 675 | 680 | 685 |
| Glu Val Gly Glu Pro Arg Val Thr Gly Asp Phe Glu Asp Asp Phe Asp | | |
| 690 | 695 | 700 |

Ala Pro Phe Asn Pro His Leu Asn Leu Lys Asp Phe Asp Ala Leu Ile
 705 710 715 720
 Leu Asp Leu Glu Arg Glu Leu Ser Lys Gln Ile Asn Val Cys Leu
 725 730 735

<210> 3025

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3025

Met Leu Pro Arg Leu Glu Cys Ser Gly Val Ile Ser Ala His Cys Ser
 1 5 10 15
 Leu His Leu Leu Gly Ser Ser Ser Pro Pro Thr Ser Thr Ser Leu Arg
 20 25 30
 Ala Glu Thr Thr Gly Val Ser His His Ala Trp Leu Ile Phe Arg Asp
 35 40 45
 Arg Val Ser Pro Ser Cys Pro Gly Trp Ser Gln Thr Pro Gly Leu Lys
 50 55 60
 Gln Ser Ser Cys Leu Ser Leu Pro Glu Tyr Trp Asp Tyr Arg Cys Glu
 65 70 75 80
 Pro Leu Pro Glu Lys Arg Phe Leu Arg Gln Gly Arg Ser Tyr Ile Ile
 85 90 95
 Phe Lys Phe Phe Leu Met Met Ser Phe Leu Ala Val His Ser Gln Arg
 100 105 110
 Thr Thr His His Thr Gln Glu Thr Val Val Leu Met
 115 120

<210> 3026

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3026

Met Ser Phe Glu Gly Gly Asp Gly Ala Gly Pro Ala Met Leu Ala Thr
 1 5 10 15
 Gly Thr Ala Arg Met Ala Ser Gly Arg Pro Glu Glu Leu Trp Glu Ala
 20 25 30
 Val Val Gly Ala Ala Glu Arg Phe Arg Ala Arg Thr Gly Thr Glu Leu
 35 40 45
 Val Leu Leu Thr Ala Ala Pro Pro Pro Pro Arg Pro Gly Pro Cys
 50 55 60
 Ala Tyr Ala Ala His Gly Arg Gly Ala Leu Ala Glu Ala Ala Arg Arg
 65 70 75 80
 Cys Leu His Asp Ile Ala Leu Ala His Arg Ala Ala Thr Ala Ala Arg
 85 90 95
 Pro Pro Ala Pro Pro Pro Ala Pro Gln Pro Pro Ser Pro Thr Pro Ser
 100 105 110
 Pro Pro Arg Pro Thr Leu Ala Arg Glu Asp Asn Glu Glu Asp Glu Asp
 115 120 125
 Glu Pro Thr Glu Thr Glu Thr Ser Gly Glu Gln Leu Gly Ile Ser Asp
 130 135 140
 Asn Gly Gly Leu Phe Val Met Asp Glu Asp Ala Thr Leu Gln Asp Leu
 145 150 155 160
 Pro Pro Phe Cys Glu Ser Asp Pro Glu Ser Thr Asp Asp Gly Ser Leu
 165 170 175
 Ser Glu Glu Thr Pro Ala Gly Pro Pro Thr Cys Ser Val Pro Pro Ala
 180 185 190
 Ser Ala Leu Pro Thr Gln Gln Tyr Ala Lys Ser Leu Pro Val Ser Val
 195 200 205
 Pro Val Trp Gly Phe Lys Glu Lys Arg Thr Glu Ala Arg Ser Ser Asp
 210 215 220
 Glu Glu Asn Gly Pro Pro Ser Ser Pro Asp Leu Asp Arg Ile Ala Ala
 225 230 235 240
 Ser Met Arg Ala Leu Val Leu Arg Glu Ala Glu Asp Thr Gln Val Phe
 245 250 255
 Gly Asp Leu Pro Arg Pro Arg Leu Asn Thr Ser Asp Phe Gln Lys Leu
 260 265 270
 Lys Arg Lys Tyr
 275

<210> 3027

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3027

```

Met Lys Asn Ala Leu Gln Ala Trp Ser Ile Ile Thr Tyr Gly Ile Ser
 1             5             10             15
Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
      20             25             30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35             40             45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50             55             60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
      65             70             75             80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
      85             90             95
Val Gly Val Ile
      100

```

<210> 3028

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3028

```

Met Asp Gln Leu Leu Asp Thr Ile Arg Ser Leu Thr Ile Gly Cys Ser
 1             5             10             15
Ser Cys Ser Ser Leu Met Glu His Phe Glu Asp Thr Arg Glu Lys Asn
      20             25             30
Glu Ala Leu Leu Gly Glu Leu Phe Ser Ser Pro His Leu Gln Met Leu
      35             40             45

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Pro | Glu | Cys | Asp | Pro | Trp | Pro | Leu | Asp | Met | Gln | Pro | Leu | Leu |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Asn | Lys | Gln | Ser | Asp | Asp | Trp | Gln | Trp | Ala | Ser | Ala | Ser | Ala | Lys | Ser |
| 65 | | | | | | 70 | | | | | 75 | | | | 80 |
| Glu | Glu | Glu | Glu | Lys | Leu | Ala | Glu | Leu | Ala | Arg | Gln | Leu | Gln | Glu | Ser |
| | | | | | 85 | | | | | 90 | | | | | 95 |
| Ala | Ala | Lys | Leu | His | Ala | Leu | Arg | Thr | Glu | Ser | Thr | Thr | Thr | Ser | Trp |
| | | | | | 100 | | | | | 105 | | | | 110 | |
| Ala | Ser | Ala | Ala | Ser | Ala | Gln | Ala | Leu | Thr | Ser | Thr | Arg | Ala | Ala | Pro |
| | | | | | 115 | | | | | 120 | | | | 125 | |
| Ser | Ser | Arg | Pro | Arg | Thr | Arg | Ile | | | | | | | | |
| 130 | | | | | | 135 | | | | | | | | | |

<210> 3029

<211> 617

<212> PRT

<213> Homo sapiens

<400> 3029

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Pro | Val | Glu | Asn | Thr | Glu | Gly | Pro | Ser | Leu | Leu | Asn | Gln | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Thr | Ala | Val | Glu | Thr | Glu | Gly | Ser | Gly | Ser | Arg | His | Pro | Pro | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Arg | Gly | Cys | Gly | Met | Phe | Thr | Phe | Leu | Ser | Ser | Val | Thr | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Ser | Gly | Leu | Leu | Val | Gly | Tyr | Glu | Leu | Gly | Ile | Ile | Ser | Gly | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Leu | Gln | Ile | Lys | Thr | Leu | Leu | Ala | Leu | Ser | Cys | His | Glu | Gln | Glu |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Met | Val | Val | Ser | Ser | Leu | Val | Ile | Gly | Ala | Leu | Leu | Ala | Ser | Leu | Thr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Gly | Val | Leu | Ile | Asp | Arg | Tyr | Gly | Arg | Arg | Thr | Ala | Ile | Ile | Leu |
| | | 100 | | | | | | 105 | | | | 110 | | | |
| Ser | Ser | Cys | Leu | Leu | Gly | Leu | Gly | Ser | Leu | Val | Leu | Ile | Leu | Ser | Leu |
| | 115 | | | | | 120 | | | | | 125 | | | | |

Ser Tyr Thr Val Leu Ile Val Gly Arg Ile Ala Ile Gly Val Ser Ile
 130 135 140
 Ser Leu Ser Ser Ile Ala Thr Cys Val Tyr Ile Ala Glu Ile Ala Pro
 145 150 155 160
 Gln His Arg Arg Gly Leu Leu Val Ser Leu Asn Glu Leu Met Ile Val
 165 170 175
 Ile Gly Ile Leu Ser Ala Tyr Ile Ser Asn Tyr Ala Phe Ala Asn Val
 180 185 190
 Phe His Gly Trp Lys Tyr Met Phe Gly Leu Val Ile Pro Leu Gly Val
 195 200 205
 Leu Gln Ala Ile Ala Met Tyr Phe Leu Pro Pro Ser Pro Arg Phe Leu
 210 215 220
 Val Met Lys Gly Gln Glu Gly Ala Ala Ser Lys Val Leu Gly Arg Leu
 225 230 235 240
 Arg Ala Leu Ser Asp Thr Thr Glu Glu Leu Thr Val Ile Lys Ser Ser
 245 250 255
 Leu Lys Asp Glu Tyr Gln Tyr Ser Phe Trp Asp Leu Phe Arg Ser Lys
 260 265 270
 Asp Asn Met Arg Thr Arg Ile Met Ile Gly Leu Thr Leu Val Phe Phe
 275 280 285
 Val Gln Ile Thr Gly Gln Pro Asn Ile Leu Phe Tyr Ala Ser Thr Val
 290 295 300
 Leu Lys Ser Val Gly Phe Gln Ser Asn Glu Ala Ala Ser Leu Ala Ser
 305 310 315 320
 Thr Gly Val Gly Val Val Lys Val Ile Ser Thr Ile Pro Ala Thr Leu
 325 330 335
 Leu Val Asp His Val Gly Ser Lys Thr Phe Leu Cys Ile Gly Ser Ser
 340 345 350
 Val Met Ala Ala Ser Leu Val Thr Met Gly Ile Val Asn Leu Asn Ile
 355 360 365
 His Met Asn Phe Thr His Ile Cys Arg Ser His Asn Ser Ile Asn Gln
 370 375 380
 Ser Leu Asp Glu Ser Val Ile Tyr Gly Pro Gly Asn Leu Ser Thr Asn
 385 390 395 400
 Asn Asn Thr Leu Arg Asp His Phe Lys Gly Ile Ser Ser His Ser Arg
 405 410 415

Ser Ser Leu Met Pro Leu Arg Asn Asp Val Asp Lys Arg Gly Glu Thr
 420 425 430
 Thr Ser Ala Ser Leu Leu Asn Ala Gly Leu Ser His Thr Glu Tyr Gln
 435 440 445
 Ile Val Thr Asp Pro Gly Asp Val Pro Ala Phe Leu Lys Trp Leu Ser
 450 455 460
 Leu Ala Ser Leu Leu Val Tyr Val Ala Ala Phe Ser Ile Gly Leu Gly
 465 470 475 480
 Pro Met Pro Trp Leu Val Leu Ser Glu Ile Phe Pro Gly Gly Ile Arg
 485 490 495
 Gly Arg Ala Met Ala Leu Thr Ser Ser Met Asn Trp Gly Ile Asn Leu
 500 505 510
 Leu Ile Ser Leu Thr Phe Leu Thr Val Thr Asp Leu Ile Gly Leu Pro
 515 520 525
 Trp Val Cys Phe Ile Tyr Thr Ile Met Ser Leu Ala Ser Leu Leu Phe
 530 535 540
 Val Val Met Phe Ile Pro Glu Thr Lys Gly Cys Ser Leu Glu Gln Ile
 545 550 555 560
 Ser Met Glu Leu Ala Lys Val Asn Tyr Val Lys Asn Asn Ile Cys Phe
 565 570 575
 Met Ser His His Gln Glu Glu Leu Val Pro Lys Gln Pro Gln Lys Arg
 580 585 590
 Lys Pro Gln Glu Gln Leu Leu Glu Cys Asn Lys Leu Cys Gly Arg Gly
 595 600 605
 Gln Ser Arg Gln Leu Ser Pro Glu Thr
 610 615

<210> 3030

<211> 895

<212> PRT

<213> Homo sapiens

<400> 3030

Met Phe Pro Thr Gly Phe Ser Ser Pro Ser Pro Ser Ala Ala Ala Ala
 1 5 10 15

Ala Gln Glu Val Arg Ser Ala Thr Asp Gly Asn Thr Ser Thr Thr Pro
 20 25 30
 Pro Thr Ser Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser
 35 40 45
 Ser Asn Arg Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser
 50 55 60
 Ser Ser Thr Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr
 65 70 75 80
 Ser Ser Phe Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro
 85 90 95
 Ile Gln Lys Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe
 100 105 110
 Asp Ala Lys Met Ala Glu Glu Ser Ser Ser Ser Pro Ser Ser Ser Ser
 115 120 125
 Pro Thr Ala Ala Thr Ser Gln Gln Gln Gln Leu Lys Asn Lys Ser Ile
 130 135 140
 Leu Ile Ser Ser Val Ala Ser Val His His Ala Asn Gly Leu Ala Lys
 145 150 155 160
 Ser Ser Thr Thr Val Ser Ser Phe Ala Asn Ser Lys Pro Gly Ser Ala
 165 170 175
 Lys Lys Leu Val Ile Lys Asn Phe Lys Asp Lys Pro Lys Leu Pro Glu
 180 185 190
 Asn Tyr Thr Asp Glu Thr Trp Gln Lys Leu Lys Glu Ala Val Glu Ala
 195 200 205
 Ile Gln Asn Ser Thr Ser Ile Lys Tyr Asn Leu Glu Glu Leu Tyr Gln
 210 215 220
 Ala Val Glu Asn Leu Cys Ser Tyr Lys Ile Ser Ala Asn Leu Tyr Lys
 225 230 235 240
 Gln Leu Arg Gln Ile Cys Gly Asp His Ile Lys Ala Gln Ile His Gln
 245 250 255
 Phe Arg Glu Asp Ser Leu Asp Ser Val Leu Phe Leu Lys Lys Ile Asp
 260 265 270
 Arg Cys Trp Gln Asn His Cys Arg Gln Met Ile Met Ile Arg Ser Ile
 275 280 285
 Phe Leu Phe Leu Asp Arg Thr Tyr Val Leu Gln Asn Ser Met Leu Pro
 290 295 300

Ser Ile Trp Asp Met Gly Leu Glu Leu Phe Arg Ala His Ile Ile Ser
 305 310 315 320
 Asp Gln Lys Val Gln Asn Lys Thr Ile Asp Gly Ile Leu Leu Leu Ile
 325 330 335
 Glu Arg Glu Arg Asn Gly Glu Ala Ile Asp Arg Ser Leu Leu Arg Ser
 340 345 350
 Leu Leu Ser Met Leu Ser Asp Leu Gln Ile Tyr Gln Asp Ser Phe Glu
 355 360 365
 Gln Arg Phe Leu Glu Glu Thr Asn Arg Leu Tyr Ala Ala Glu Gly Gln
 370 375 380
 Lys Leu Met Gln Glu Arg Glu Val Pro Glu Tyr Leu His His Val Asn
 385 390 395 400
 Lys Arg Leu Glu Glu Glu Ala Asp Arg Leu Ile Thr Tyr Leu Asp Gln
 405 410 415
 Thr Thr Gln Lys Ser Leu Ile Ala Thr Val Glu Lys Gln Leu Leu Gly
 420 425 430
 Glu His Leu Thr Ala Ile Leu Gln Lys Gly Leu Asn Asn Leu Leu Asp
 435 440 445
 Glu Asn Arg Ile Gln Asp Leu Ser Leu Leu Tyr Gln Leu Phe Ser Arg
 450 455 460
 Val Arg Gly Gly Val Gln Val Leu Leu Gln Gln Trp Ile Glu Tyr Ile
 465 470 475 480
 Lys Ala Phe Gly Ser Thr Ile Val Ile Asn Pro Glu Lys Asp Lys Thr
 485 490 495
 Met Val Gln Glu Leu Leu Asp Phe Lys Asp Lys Val Asp His Ile Ile
 500 505 510
 Asp Ile Cys Phe Leu Lys Asn Glu Lys Phe Ile Asn Ala Met Lys Glu
 515 520 525
 Ala Phe Glu Thr Phe Ile Asn Lys Arg Pro Asn Lys Pro Ala Glu Leu
 530 535 540
 Ile Ala Lys Tyr Val Asp Ser Lys Leu Arg Ala Gly Asn Lys Glu Ala
 545 550 555 560
 Thr Asp Glu Glu Leu Glu Lys Met Leu Asp Lys Ile Met Ile Ile Phe
 565 570 575
 Arg Phe Ile Tyr Gly Lys Asp Val Phe Glu Ala Phe Tyr Lys Lys Asp
 580 585 590

Leu Ala Lys Arg Leu Leu Val Gly Lys Ser Ala Ser Val Asp Ala Glu
 595 600 605
 Lys Ser Met Leu Ser Lys Leu Lys His Glu Cys Gly Ala Ala Phe Thr
 610 615 620
 Ser Lys Leu Glu Gly Met Phe Lys Asp Met Glu Leu Ser Lys Asp Ile
 625 630 635 640
 Met Ile Gln Phe Lys Gln Tyr Met Gln Asn Gln Asn Val Pro Gly Asn
 645 650 655
 Ile Glu Leu Thr Val Asn Ile Leu Thr Met Gly Tyr Trp Pro Thr Tyr
 660 665 670
 Val Pro Met Glu Val His Leu Pro Pro Glu Met Val Lys Leu Gln Glu
 675 680 685
 Ile Phe Lys Thr Phe Tyr Leu Gly Lys His Ser Gly Arg Lys Leu Gln
 690 695 700
 Trp Gln Ser Thr Leu Gly His Cys Val Leu Lys Ala Glu Phe Lys Glu
 705 710 715 720
 Gly Lys Lys Glu Leu Gln Val Ser Leu Phe Gln Thr Leu Val Leu Leu
 725 730 735
 Met Phe Asn Glu Gly Glu Glu Phe Ser Leu Glu Glu Ile Lys Gln Ala
 740 745 750
 Thr Gly Ile Glu Asp Gly Glu Leu Arg Arg Thr Leu Gln Ser Leu Ala
 755 760 765
 Cys Gly Lys Ala Arg Val Leu Ala Lys Asn Pro Lys Gly Lys Asp Ile
 770 775 780
 Glu Asp Gly Asp Lys Phe Ile Cys Asn Asp Asp Phe Lys His Lys Leu
 785 790 795 800
 Phe Arg Ile Lys Ile Asn Gln Ile Gln Met Lys Glu Thr Val Glu Glu
 805 810 815
 Gln Ala Ser Thr Thr Glu Arg Val Phe Gln Asp Arg Gln Tyr Gln Ile
 820 825 830
 Asp Ala Ala Ile Val Arg Ile Met Lys Met Arg Lys Thr Leu Ser His
 835 840 845
 Asn Leu Leu Val Ser Glu Val Tyr Asn Gln Leu Lys Phe Pro Val Lys
 850 855 860
 Pro Ala Asp Leu Lys Lys Arg Ile Glu Ser Leu Ile Asp Arg Asp Tyr
 865 870 875 880

Met Glu Arg Asp Lys Glu Asn Pro Asn Gln Tyr Asn Tyr Ile Ala
 885 890 895

<210> 3031

<211> 160

<212> PRT

<213> Homo sapiens

<400> 3031

Met Leu Ser His Leu Leu Ala Tyr Arg Arg Ser Arg Asp Phe Ile Asp
 1 5 10 15
 Val Cys Glu Val Ser Glu Asn Val Pro Ala Phe Thr Pro Ala Phe Ser
 20 25 30
 His Trp His Leu Leu Leu Thr Trp Ala Ile Trp Pro Cys Met Val Leu
 35 40 45
 Gly Glu Ser Ser Leu Thr Leu Gln Met Leu Ser Ser Asp Leu Ala Gly
 50 55 60
 Lys Gly Asp Gln Glu Cys Arg Ala Pro Ala Glu Asp Ser Pro Lys Pro
 65 70 75 80
 Lys Ser Gln Arg Val Gly Ala Pro Thr Thr Ser Ala Cys Met Pro Phe
 85 90 95
 Pro Gly Ser Pro Gln Ala Asp Ser Gln His Pro Leu Pro Lys Asp Arg
 100 105 110
 Ala Val Pro Asp Gln His Pro Thr Lys Ser Ser Val Arg Pro Val Phe
 115 120 125
 Gly Gly Ala Gly Phe Gln Glu Asp Ser Gly Gly Gly Val Glu Leu Met
 130 135 140
 Ala Gly Gly Ser Gly Pro Leu Arg Lys Leu Cys His Trp Ala Trp Gly
 145 150 155 160

<210> 3032

<211> 570

<212> PRT

<213> Homo sapiens

<400> 3032

Met Ala Gly Leu Thr Ala Ala Ala Pro Arg Pro Gly Val Leu Leu Leu
 1 5 10 15
 Leu Leu Ser Ile Leu His Pro Ser Arg Pro Gly Gly Val Pro Gly Ala
 20 25 30
 Ile Pro Gly Gly Val Pro Gly Gly Val Phe Tyr Pro Gly Ala Gly Leu
 35 40 45
 Gly Ala Leu Gly Gly Gly Ala Leu Gly Pro Gly Gly Lys Pro Leu Lys
 50 55 60
 Pro Val Pro Gly Gly Leu Ala Gly Ala Gly Leu Gly Ala Gly Val Gly
 65 70 75 80
 Gly Ala Phe Ala Gly Ile Pro Gly Val Gly Pro Phe Gly Gly Pro Gln
 85 90 95
 Pro Gly Val Pro Leu Gly Tyr Pro Ile Lys Ala Pro Lys Leu Pro Gly
 100 105 110
 Tyr Gly Pro Gly Gly Val Ala Gly Ala Ala Gly Lys Ala Gly Tyr Pro
 115 120 125
 Thr Gly Thr Gly Val Gly Pro Gln Ala Ala Ala Ala Ala Ala Lys
 130 135 140
 Ala Ala Ala Lys Phe Gly Ala Gly Ala Ala Gly Val Leu Pro Gly Val
 145 150 155 160
 Gly Gly Ala Gly Val Pro Gly Val Pro Gly Ala Ile Pro Gly Ile Gly
 165 170 175
 Gly Ile Ala Gly Val Gly Thr Pro Ala Ala Ala Ala Ala Ala Ala
 180 185 190
 Ala Ala Lys Ala Ala Lys Tyr Gly Ala Ala Ala Gly Leu Val Pro Gly
 195 200 205
 Gly Pro Gly Phe Gly Pro Gly Val Val Gly Val Pro Gly Ala Gly Val
 210 215 220
 Pro Gly Val Gly Val Pro Gly Ala Gly Ile Pro Val Val Pro Gly Ala
 225 230 235 240
 Gly Ile Pro Gly Ala Ala Val Pro Gly Val Val Ser Pro Glu Ala Ala
 245 250 255
 Ala Lys Ala Ala Ala Lys Ala Ala Lys Tyr Gly Ala Arg Pro Gly Val
 260 265 270

Gly Val Gly Gly Ile Pro Thr Tyr Gly Val Gly Ala Gly Gly Phe Pro
 275 280 285
 Gly Phe Gly Val Gly Val Gly Gly Ile Pro Gly Val Ala Gly Val Pro
 290 295 300
 Ser Val Gly Gly Val Pro Gly Val Gly Gly Val Pro Gly Val Gly Ile
 305 310 315 320
 Ser Pro Glu Ala Gln Ala Ala Ala Ala Lys Ala Ala Lys Tyr Gly
 325 330 335
 Leu Val Pro Gly Val Gly Val Ala Pro Gly Val Gly Val Ala Pro Gly
 340 345 350
 Val Gly Val Ala Pro Gly Val Gly Leu Ala Pro Gly Val Gly Val Ala
 355 360 365
 Pro Gly Val Gly Val Ala Pro Gly Val Gly Val Ala Pro Gly Ile Gly
 370 375 380
 Pro Gly Gly Ile Ala Ala Ala Ala Lys Ser Ala Ala Lys Val Ala Ala
 385 390 395 400
 Lys Ala Gln Leu Arg Ala Ala Ala Gly Leu Gly Ala Gly Ile Pro Gly
 405 410 415
 Leu Gly Val Gly Val Gly Val Pro Gly Leu Gly Val Gly Ala Gly Val
 420 425 430
 Pro Gly Leu Gly Val Gly Ala Gly Val Pro Gly Phe Gly Ala Val Pro
 435 440 445
 Gly Ala Leu Ala Ala Ala Lys Ala Ala Lys Tyr Gly Ala Ala Val Pro
 450 455 460
 Gly Val Leu Gly Gly Leu Gly Ala Leu Gly Gly Val Gly Ile Pro Gly
 465 470 475 480
 Gly Val Val Gly Ala Gly Pro Ala Ala Ala Ala Ala Ala Lys Ala
 485 490 495
 Ala Ala Lys Ala Ala Gln Phe Gly Leu Val Gly Ala Ala Gly Leu Gly
 500 505 510
 Gly Leu Gly Val Gly Gly Leu Gly Val Pro Gly Val Gly Gly Leu Gly
 515 520 525
 Gly Ile Pro Pro Ala Ala Ala Ala Lys Ala Ala Lys Tyr Gly Val Ala
 530 535 540
 Ala Arg Pro Gly Phe Gly Leu Ser Pro Ile Phe Pro Gly Gly Ala Cys
 545 550 555 560

Leu Gly Lys Ala Cys Gly Arg Lys Arg Lys

565

570

<210> 3033

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3033

Met Val Ala Asp Pro Pro Arg Asp Ser Lys Gly Leu Ala Ala Ala Glu

1

5

10

15

Pro Thr Ala Asn Gly Gly Leu Ala Leu Ala Ser Ile Glu Asp Gln Gly

20

25

30

Ala Ala Ala Gly Gly Tyr Cys Gly Ser Arg Asp Gln Val Arg Arg Cys

35

40

45

Leu Arg Ala Asn Leu Leu Val Leu Leu Thr Val Val Val Cys Ser Leu

50

55

60

Ile Gly Gly Ala Ala Ser Leu Asp Pro Gly Ala Leu Gly Arg Leu Gly

65

70

75

80

Ala Trp Ala Leu Leu Phe Phe Leu Val Thr Thr Leu Leu Ala Ser Ala

85

90

95

Leu Gly Val Gly Leu Ala Leu Ala Leu Gln Pro Gly Ala Ala Ser Ala

100

105

110

Ala Ile Asn Ala Ser Val Gly Ala Ala Gly Ser Ala Glu Asn Ala Pro

115

120

125

Ser Lys Glu Val Leu Asp Ser Phe Leu Asp Leu Ala Arg Asn Ile Phe

130

135

140

Pro Ser Asn Leu Val Ser Ala Ala Phe Arg Ser Tyr Ser Thr Thr Tyr

145

150

155

160

Glu Glu Arg Asn Ile Thr Gly Thr Arg Val Lys Val Pro Val Gly Gln

165

170

175

Glu Val Glu Gly Met Asn Ile Leu Gly Leu Val Val Phe Ala Ile Val

180

185

190

Phe Gly Val Ala Leu Arg Lys Leu Gly Pro Glu Gly Glu Leu Leu Ile

195

200

205

Arg Phe Phe Asn Ser Phe Asn Glu Ala Thr Met Val Leu Val Ser Trp
 210 215 220
 Ile Met Trp Tyr Ala Pro Val Gly Ile Met Phe Leu Val Ala Gly Lys
 225 230 235 240
 Ile Val Glu Met Glu Asp Val Gly Leu Leu Phe Ala Arg Leu Gly Lys
 245 250 255
 Tyr Ile Leu Cys Cys Leu Leu Gly His Ala Ile His Gly Leu Leu Val
 260 265 270
 Leu Pro Leu Ile Tyr Phe Leu Phe Thr Arg Lys Asn Pro Tyr Arg Phe
 275 280 285
 Leu Trp Gly Ile Val Thr Pro Leu Ala Thr Ala Phe Gly Thr Ser Ser
 290 295 300
 Ser Ser Ala Thr Leu Pro Leu Met Met Lys Cys Val Glu Glu Asn Asn
 305 310 315 320
 Gly Val Ala Lys His Ile Ser Arg Phe Ile Leu Pro Ile Gly Ala Thr
 325 330 335
 Val Asn Met Asp Gly Ala Ala Leu Phe Gln Cys Val Ala Ala Val Phe
 340 345 350
 Ile Ala Gln Leu Ser Gln Gln Ser Leu Asp Phe Val Lys Ile Ile Thr
 355 360 365
 Ile Leu Val Thr Ala Thr Ala Ser Ser Val Gly Ala Ala Gly Ile Pro
 370 375 380
 Ala Gly Gly Val Leu Thr Leu Ala Ile Ile Leu Glu Ala Val Asn Leu
 385 390 395 400
 Pro Val Asp His Ile Ser Leu Ile Leu Ala Val Asp Trp Leu Val Asp
 405 410 415
 Arg Ser Cys Thr Val Leu Asn Val Glu Gly Asp Ala Leu Gly Ala Gly
 420 425 430
 Leu Leu Gln Asn Tyr Val Asp Arg Thr Glu Ser Arg Ser Thr Glu Pro
 435 440 445
 Glu Leu Ile Gln Val Lys Ser Glu Leu Pro Leu Asp Pro Leu Pro Val
 450 455 460
 Pro Thr Glu Glu Gly Asn Pro Leu Leu Lys His Tyr Arg Gly Pro Ala
 465 470 475 480
 Gly Asp Ala Thr Val Ala Ser Glu Lys Glu Ser Val Met
 485 490

<210> 3034

<211> 675

<212> PRT

<213> Homo sapiens

<400> 3034

```

Met Arg Pro Leu Arg Pro Arg Ala Ala Leu Leu Ala Leu Leu Ala Ser
 1             5             10             15
Leu Leu Ala Ala Pro Pro Val Ala Pro Ala Glu Ala Pro His Leu Val
      20             25             30
His Val Asp Ala Ala Arg Ala Leu Trp Pro Leu Arg Arg Phe Trp Arg
      35             40             45
Ser Thr Gly Phe Trp Gly Ser Thr Gly Arg Gly Leu Ser Tyr Asn Phe
      50             55             60
Thr His Leu Asp Gly Tyr Leu Asp Leu Leu Arg Glu Asn Gln Leu Leu
      65             70             75             80
Pro Gly Phe Glu Leu Met Gly Ser Ala Ser Gly His Phe Thr Asp Phe
      85             90             95
Glu Asp Lys Gln Gln Val Phe Glu Trp Lys Asp Leu Val Ser Ser Leu
      100            105            110
Ala Arg Arg Tyr Ile Gly Arg Tyr Gly Leu Ala His Val Ser Lys Trp
      115            120            125
Asn Phe Glu Thr Trp Asn Glu Pro Asp His His Asp Phe Asp Asn Val
      130            135            140
Ser Met Thr Met Gln Gly Phe Leu Asn Tyr Tyr Asp Ala Cys Ser Glu
      145            150            155            160
Gly Leu Arg Ala Ala Ser Pro Ala Leu Arg Leu Gly Gly Pro Gly Asp
      165            170            175
Ser Phe His Thr Pro Pro Arg Ser Pro Leu Ser Trp Gly Leu Leu Arg
      180            185            190
His Cys His Asp Gly Thr Asn Phe Phe Thr Gly Glu Ala Gly Val Arg
      195            200            205
Leu Asp Tyr Ile Ser Leu His Arg Lys Val Arg Pro Ala Pro Pro Ser
      210            215            220

```

Ala Pro Val Phe Cys Ala Leu Ser Arg Cys Ala Pro Gly Arg Ala Asp
 225 230 235 240
 Pro Gly Gly Ala Glu Ala Ala Pro Pro Ala Gly Cys Ala Gln Leu His
 245 250 255
 Leu His Pro Gly Ala Gly Glu Gly Arg Arg Ala Ala Asp Pro Ala Ala
 260 265 270
 Leu Pro Gln Val Arg Gly His Pro His Leu Gln Arg Arg Gly Gly Pro
 275 280 285
 Ala Gly Gly Leu Val Pro Ala Thr Ala Val Glu Gly Gly Arg Asp Leu
 290 295 300
 Arg Gly His Gly Gly Glu Gly Gly Pro Ala Gln Arg Pro Ala Arg Pro
 305 310 315 320
 Pro Ala Thr Phe Leu Pro Arg Arg Asp Arg Arg Ala Val Ala Ala Pro
 325 330 335
 Pro Gly Pro Ser Cys Pro Gly His Pro Gln Val Ile Ala Gln His Gln
 340 345 350
 Asn Leu Leu Leu Ala Asn Thr Thr Ser Ala Phe Pro Tyr Ala Leu Leu
 355 360 365
 Ser Asn Asp Asn Ala Phe Leu Ser Tyr His Pro His Pro Phe Ala Gln
 370 375 380
 Arg Thr Leu Thr Ala Arg Phe Gln Val Asn Asn Thr Arg Pro Pro His
 385 390 395 400
 Val Gln Leu Leu Arg Lys Pro Val Leu Thr Ala Met Gly Leu Leu Ala
 405 410 415
 Leu Leu Asp Glu Glu Gln Leu Trp Ala Glu Val Ser Gln Ala Gly Thr
 420 425 430
 Val Leu Asp Ser Asn His Thr Val Gly Val Leu Ala Ser Ala His Arg
 435 440 445
 Pro Gln Gly Pro Ala Asp Ala Trp Arg Ala Ala Val Leu Ile Tyr Ala
 450 455 460
 Ser Asp Asp Thr Arg Ala His Pro Asn Arg Ser Val Ala Val Thr Leu
 465 470 475 480
 Arg Leu Arg Gly Val Pro Pro Gly Pro Gly Leu Val Tyr Val Thr Arg
 485 490 495
 Tyr Leu Asp Asn Gly Leu Cys Ser Pro Asp Gly Glu Trp Arg Arg Leu

500 505 510
 Gly Arg Pro Val Phe Pro Thr Ala Glu Gln Phe Arg Arg Met Arg Ala
 515 520 525
 Ala Glu Asp Pro Val Ala Ala Ala Pro Arg Pro Leu Pro Ala Gly Gly
 530 535 540
 Arg Leu Thr Leu Arg Pro Ala Leu Arg Leu Pro Ser Leu Leu Leu Val
 545 550 555 560
 His Val Cys Ala Arg Pro Glu Lys Pro Pro Gly Gln Val Thr Arg Leu
 565 570 575
 Arg Ala Leu Pro Leu Thr Gln Gly Gln Leu Val Leu Val Trp Ser Asp
 580 585 590
 Glu His Val Gly Ser Lys Cys Leu Trp Thr Tyr Glu Ile Gln Phe Ser
 595 600 605
 Gln Asp Gly Lys Ala Tyr Thr Pro Val Ser Arg Lys Pro Ser Thr Phe
 610 615 620
 Asn Leu Phe Val Phe Ser Pro Asp Thr Gly Ala Val Ser Gly Ser Tyr
 625 630 635 640
 Arg Val Arg Ala Leu Asp Tyr Trp Ala Arg Pro Gly Pro Phe Ser Asp
 645 650 655
 Pro Val Pro Tyr Leu Glu Val Pro Val Pro Arg Gly Pro Pro Ser Pro
 660 665 670
 Gly Asn Pro
 675

<210> 3035

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3035

Met His Ser Ser Ser Phe Arg Phe Val Asn Ile Trp Pro Ala Leu Phe
 1 5 10 15
 Phe Ala Pro Arg Ser Val Val Arg Arg Ala Ala Ser Leu Leu Ser Lys
 20 25 30
 Val Val Asp Ser Leu Ala Pro Ser Ile Thr Asn Val Leu Val Gln Gly

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Lys Gln Val Thr Leu Gly Ala Phe Gly His Glu Glu Glu Val Ile Ser | | |
| 50 | 55 | 60 |
| Asn Pro Leu Ser Pro Arg Val Ile Gln Asn Ile Ile Tyr Tyr Lys Cys | | |
| 65 | 70 | 75 |
| Asn Thr His Asp Glu Arg Glu Ala Val Ile Gln Gln Glu Leu Val Ile | | |
| 85 | 90 | 95 |
| His Ile Gly Trp Ile Ile Ser Asn Asn Pro Glu Leu Phe Ser Gly Met | | |
| 100 | 105 | 110 |
| Leu Lys Ile Arg Ile Gly Trp Ile Ile His Ala Met Glu Tyr Glu Leu | | |
| 115 | 120 | 125 |
| Gln Ile Arg Gly Gly Asp Lys Pro Ala Leu Asp Leu Tyr Gln Leu Ser | | |
| 130 | 135 | 140 |
| Pro Ser Glu Val Lys Gln Leu Leu Leu Asp Ile Leu Gln Pro Gln Gln | | |
| 145 | 150 | 155 |
| Asn Gly Arg Cys Trp Leu Asn Arg Arg Gln Ile Asp Gly Ser Leu Asn | | |
| 165 | 170 | 175 |
| Arg Thr Pro Thr Gly Phe Tyr Asp Arg Val Trp Gln Ile Leu Glu Arg | | |
| 180 | 185 | 190 |
| Thr Pro Asn Gly Ile Ile Val Ala Gly Lys His Leu Pro Gln Gln Pro | | |
| 195 | 200 | 205 |
| Thr Leu Ser Asp Met Thr Met Tyr Glu Met Asn Phe Ser Leu Leu Val | | |
| 210 | 215 | 220 |
| Glu Asp Thr Leu Gly Asn Ile Asp Gln Pro Gln Tyr Arg Gln Ile Val | | |
| 225 | 230 | 235 |
| Val Glu Leu Leu Met Val Val Ser Ile Val Leu Glu Arg Asn Pro Glu | | |
| 245 | 250 | 255 |
| Leu Glu Phe Gln Asp Lys Val Asp Leu Asp Arg Leu Val Lys Glu Ala | | |
| 260 | 265 | 270 |
| Phe Asn Glu Phe Gln Lys Asp Gln Ser Arg Leu Lys Glu Ile Glu Lys | | |
| 275 | 280 | 285 |
| Gln Asp Asp Met Thr Ser Phe Tyr Asn Thr Pro Pro Leu Gly Lys Arg | | |
| 290 | 295 | 300 |
| Gly Thr Cys Ser Tyr Leu Thr Lys Ala Val Met Asn Leu Leu Leu Glu | | |
| 305 | 310 | 315 |
| Gly Glu Val Lys Pro Asn Asn Asp Asp Pro Cys Leu Ile Ser | | 320 |

325

330

<210> 3036

<211> 578

<212> PRT

<213> Homo sapiens

<400> 3036

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Met Gly Asp Ser Pro Gly Arg Gly Ala Pro Glu Arg Arg His Lys Ala
  1             5             10            15
Gln Pro Gly Arg Ala Arg Lys Tyr Glu Trp Arg Pro Glu Gly Pro Thr
      20             25            30
Ser Met Gly Ser Leu Gly Gln Arg Glu Asp Leu Gln Asp Glu Asp Arg
      35             40            45
Asn Ser Ala Phe Thr Trp Lys Val Gln Ala Asn Asn Arg Ala Tyr Asn
      50             55            60
Gly Gln Phe Lys Glu Lys Val Ile Leu Cys Trp Gln Arg Lys Lys Tyr
      65             70            75            80
Lys Thr Asn Val Ile Arg Thr Ala Lys Tyr Asn Phe Tyr Ser Phe Leu
      85             90            95
Pro Leu Asn Leu Tyr Glu Gln Phe His Arg Val Ser Asn Leu Phe Phe
      100            105            110
Leu Ile Ile Ile Ile Leu Gln Ser Ile Pro Asp Ile Ser Thr Leu Pro
      115            120            125
Trp Phe Ser Leu Ser Thr Pro Met Val Cys Leu Leu Phe Ile Arg Ala
      130            135            140
Thr Arg Asp Leu Val Asp Asp Met Gly Arg His Lys Ser Asp Arg Ala
      145            150            155            160
Ile Asn Asn Arg Pro Cys Gln Ile Leu Met Gly Lys Ser Phe Lys Gln
      165            170            175
Lys Lys Trp Gln Asp Leu Cys Val Gly Asp Val Val Cys Leu Arg Lys
      180            185            190
Asp Asn Ile Val Pro Ala Asp Met Leu Leu Leu Ala Ser Thr Glu Pro
      195            200            205
Ser Ser Leu Cys Tyr Val Glu Thr Val Asp Ile Asp Gly Glu Thr Asn

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| | | | |
|---|-----|-----|-----|
| 210 | 215 | 220 | |
| Leu Lys Phe Arg Gln Ala Leu Met Val Thr His Lys Glu Leu Ala Thr | | | |
| 225 | 230 | 235 | 240 |
| Ile Lys Lys Met Ala Ser Phe Gln Gly Thr Val Thr Cys Glu Ala Pro | | | |
| 245 | 250 | 255 | |
| Asn Ser Arg Met His His Phe Val Gly Cys Leu Glu Trp Asn Asp Lys | | | |
| 260 | 265 | 270 | |
| Lys Tyr Ser Leu Asp Ile Gly Asn Leu Leu Leu Arg Gly Cys Arg Ile | | | |
| 275 | 280 | 285 | |
| Arg Asn Thr Asp Thr Cys Tyr Gly Leu Val Ile Tyr Ala Gly Phe Asp | | | |
| 290 | 295 | 300 | |
| Thr Lys Ile Met Lys Asn Cys Gly Lys Ile His Leu Lys Arg Thr Lys | | | |
| 305 | 310 | 315 | 320 |
| Leu Asp Leu Leu Met Asn Lys Leu Val Val Val Ile Phe Ile Ser Val | | | |
| 325 | 330 | 335 | |
| Val Leu Val Cys Leu Val Leu Ala Phe Gly Phe Gly Phe Ser Val Lys | | | |
| 340 | 345 | 350 | |
| Glu Phe Lys Asp His His Tyr Tyr Leu Ser Gly Val His Gly Ser Ser | | | |
| 355 | 360 | 365 | |
| Val Ala Ala Glu Ser Phe Phe Val Phe Trp Ser Phe Leu Ile Leu Leu | | | |
| 370 | 375 | 380 | |
| Ser Val Thr Ile Pro Met Ser Met Phe Ile Leu Ser Glu Phe Ile Tyr | | | |
| 385 | 390 | 395 | 400 |
| Leu Gly Asn Ser Val Phe Ile Asp Trp Asp Val Gln Met Tyr Tyr Lys | | | |
| 405 | 410 | 415 | |
| Pro Gln Asp Val Pro Ala Lys Ala Arg Ser Thr Ser Leu Asn Asp His | | | |
| 420 | 425 | 430 | |
| Leu Gly Gln Val Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr Leu Thr | | | |
| 435 | 440 | 445 | |
| Gln Asn Ile Leu Thr Phe Asn Lys Cys Cys Ile Ser Gly Arg Val Tyr | | | |
| 450 | 455 | 460 | |
| Gly Ala Ala Pro Thr Pro Glu Leu Pro Ala Gly Ser Ser Ile Phe Lys | | | |
| 465 | 470 | 475 | 480 |
| Gly Leu Arg Val Pro Glu Asn Gln Ser His Val Trp Pro His Ala Gln | | | |
| 485 | 490 | 495 | |
| His Leu Arg Pro Asn Leu Asn Gln Gly Thr Val Ala Arg Trp Pro Gly | | | |

500 505 510
 Phe Leu Trp Arg Gly Pro Gly Lys Phe Phe Phe Phe Leu Arg Gln Ser
 515 520 525
 Leu Thr Leu Ser Thr Gln Ala Gly Val Gln Trp Cys Asn Leu Gly Ser
 530 535 540
 Leu Gln Ser Pro Pro Pro Gly Phe Arg Arg Phe Ser Trp Leu Ser Leu
 545 550 555 560
 Pro Ser Gly Trp Asp Tyr Arg His Leu Pro Pro His Leu Ile Phe Leu
 565 570 575
 Tyr Phe

<210> 3037

<211> 409

<212> PRT

<213> Homo sapiens

<400> 3037

Met Gln Val Thr Leu Lys Thr Leu Gln Gln Gln Thr Phe Lys Ile Asp
 1 5 10 15
 Ile Asp Pro Glu Glu Thr Val Lys Ala Leu Lys Glu Lys Ile Glu Ser
 20 25 30
 Glu Lys Gly Lys Asp Ala Phe Pro Val Ala Gly Gln Lys Leu Ile Tyr
 35 40 45
 Ala Gly Lys Ile Leu Asn Asp Asp Thr Ala Leu Lys Glu Tyr Lys Ile
 50 55 60
 Asp Glu Lys Asn Phe Val Val Val Met Val Thr Lys Pro Lys Ala Val
 65 70 75 80
 Ser Thr Pro Ala Pro Ala Thr Thr Gln Gln Ser Ala Pro Ala Ser Thr
 85 90 95
 Thr Ala Val Thr Ser Ser Thr Thr Thr Thr Val Ala Gln Ala Pro Thr
 100 105 110
 Pro Val Pro Ala Leu Ala Pro Thr Ser Thr Pro Ala Ser Ile Thr Pro
 115 120 125
 Ala Ser Ala Thr Ala Ser Ser Glu Pro Ala Pro Ala Ser Ala Ala Lys

| | | | |
|---|-------------------------|---------------------|-----|
| 130 | 135 | 140 | |
| Gln Glu Lys Pro Ala | Glu Lys Pro Ala Glu Thr | Pro Val Ala Thr Ser | |
| 145 | 150 | 155 | 160 |
| Pro Thr Ala Thr Asp Ser Thr Ser Gly Asp Ser Ser Arg Ser Asn Leu | | | |
| | 165 | 170 | 175 |
| Phe Glu Asp Ala Thr Ser Ala Leu Val Thr Gly Gln Ser Tyr Glu Asn | | | |
| | 180 | 185 | 190 |
| Met Val Thr Glu Ile Met Ser Met Gly Tyr Glu Arg Glu Gln Val Ile | | | |
| | 195 | 200 | 205 |
| Ala Ala Leu Arg Ala Ser Phe Asn Asn Pro Asp Arg Ala Val Glu Tyr | | | |
| 210 | 215 | 220 | |
| Leu Leu Met Gly Ile Pro Gly Asp Arg Glu Ser Gln Ala Val Val Asp | | | |
| 225 | 230 | 235 | 240 |
| Pro Pro Gln Ala Ala Ser Thr Gly Ala Pro Gln Ser Ser Ala Val Ala | | | |
| | 245 | 250 | 255 |
| Ala Ala Ala Ala Thr Thr Thr Ala Thr Thr Thr Thr Thr Ser Ser Gly | | | |
| | 260 | 265 | 270 |
| Gly His Pro Leu Glu Phe Leu Arg Asn Gln Pro Gln Phe Gln Gln Met | | | |
| | 275 | 280 | 285 |
| Arg Gln Ile Ile Gln Gln Asn Pro Ser Leu Leu Pro Ala Leu Leu Gln | | | |
| 290 | 295 | 300 | |
| Gln Ile Gly Arg Glu Asn Pro Gln Leu Leu Gln Gln Ile Ser Gln His | | | |
| 305 | 310 | 315 | 320 |
| Gln Glu His Phe Ile Gln Met Leu Asn Glu Pro Val Gln Glu Ala Gly | | | |
| | 325 | 330 | 335 |
| Gly Gln Gly Gly Gly Gly Gly Gly Gly Ser Gly Gly Ile Ala Glu Ala | | | |
| | 340 | 345 | 350 |
| Gly Ser Gly His Met Asn Tyr Ile Gln Val Thr Pro Gln Glu Lys Glu | | | |
| | 355 | 360 | 365 |
| Ala Ile Glu Arg Leu Lys Ala Leu Gly Phe Pro Glu Gly Leu Val Ile | | | |
| 370 | 375 | 380 | |
| Gln Ala Tyr Phe Ala Cys Glu Lys Asn Glu Asn Leu Ala Ala Asn Phe | | | |
| 385 | 390 | 395 | 400 |
| Leu Leu Gln Gln Asn Phe Asp Glu Asp | | | |
| | 405 | | |

<210> 3038

<211> 521

<212> PRT

<213> Homo sapiens

<400> 3038

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Met Pro Ser Ala Lys Gln Arg Gly Ser Lys Gly Gly His Gly Ala Ala
  1             5             10             15
Ser Pro Ser Glu Lys Gly Ala His Pro Ser Gly Gly Ala Asp Asp Val
      20             25             30
Ala Lys Lys Pro Pro Pro Ala Ala Phe Ser Gly Trp Cys Val His His
      35             40             45
Val Leu Glu Glu Val Gln Gln Val Arg Arg Ser His Gln Asp Phe Ser
      50             55             60
Arg Gln Arg Glu Glu Leu Gly Gln Gly Leu Gln Gly Val Glu Gln Lys
      65             70             75             80
Val Gln Ser Leu Gln Ala Thr Phe Gly Thr Phe Glu Ser Ile Leu Arg
      85             90             95
Ser Ser Gln His Lys Gln Asp Leu Thr Glu Lys Ala Val Lys Gln Gly
      100            105            110
Glu Ser Glu Val Ser Arg Ile Ser Glu Val Leu Gln Lys Leu Gln Asn
      115            120            125
Glu Ile Leu Lys Asp Leu Ser Asp Gly Ile His Val Val Lys Asp Ala
      130            135            140
Arg Glu Arg Asp Phe Thr Ser Leu Glu Asn Thr Val Glu Glu Arg Leu
      145            150            155            160
Thr Glu Leu Thr Lys Ser Ile Asn Asp Asn Ile Ala Ile Phe Thr Glu
      165            170            175
Val Gln Lys Arg Ser Gln Lys Glu Ile Asn Asp Met Lys Ala Lys Val
      180            185            190
Ala Ser Leu Glu Glu Ser Glu Gly Asn Lys Gln Asp Leu Lys Ala Leu
      195            200            205
Lys Glu Ala Val Lys Glu Ile Gln Thr Ser Ala Lys Ser Arg Glu Trp
      210            215            220
Asp Met Glu Ala Leu Arg Ser Thr Leu Gln Thr Met Glu Ser Asp Ile

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| | | | |
|---|-----|-----|-----|
| 225 | 230 | 235 | 240 |
| Tyr Thr Glu Val Arg Glu Leu Val Ser Leu Lys Gln Glu Gln Gln Ala | | | |
| | 245 | 250 | 255 |
| Phe Lys Glu Ala Ala Asp Thr Glu Arg Leu Ala Leu Gln Ala Leu Thr | | | |
| | 260 | 265 | 270 |
| Glu Lys Leu Leu Arg Ser Glu Glu Ser Val Ser Arg Leu Pro Glu Glu | | | |
| | 275 | 280 | 285 |
| Ile Arg Arg Leu Glu Glu Glu Leu Arg Gln Leu Lys Ser Asp Ser His | | | |
| | 290 | 295 | 300 |
| Gly Pro Lys Glu Asp Gly Gly Phe Arg His Ser Glu Ala Phe Glu Ala | | | |
| 305 | 310 | 315 | 320 |
| Leu Gln Gln Lys Ser Gln Gly Leu Asp Ser Arg Leu Gln His Val Glu | | | |
| | 325 | 330 | 335 |
| Asp Gly Val Leu Ser Met Gln Val Ala Ser Ala Arg Gln Thr Glu Ser | | | |
| | 340 | 345 | 350 |
| Leu Glu Ser Leu Leu Ser Lys Ser Gln Glu His Glu Gln Arg Leu Ala | | | |
| | 355 | 360 | 365 |
| Ala Leu Gln Gly Arg Leu Glu Gly Leu Gly Ser Ser Glu Ala Asp Gln | | | |
| | 370 | 375 | 380 |
| Asp Gly Leu Ala Ser Thr Val Arg Ser Leu Gly Glu Thr Gln Leu Val | | | |
| 385 | 390 | 395 | 400 |
| Leu Tyr Gly Asp Val Glu Glu Leu Lys Arg Ser Val Gly Glu Leu Pro | | | |
| | 405 | 410 | 415 |
| Ser Thr Val Glu Ser Leu Gln Lys Val Gln Glu Gln Val Tyr Thr Leu | | | |
| | 420 | 425 | 430 |
| Leu Ser Gln Asp Gln Ala Gln Ala Ala Arg Leu Pro Pro Gln Asp Phe | | | |
| | 435 | 440 | 445 |
| Leu Asp Arg Leu Ser Ser Leu Asp Asn Leu Lys Ala Ser Val Ser Gln | | | |
| | 450 | 455 | 460 |
| Val Glu Ala Asp Leu Lys Met Leu Arg Thr Ala Val Asp Ser Leu Val | | | |
| 465 | 470 | 475 | 480 |
| Ala Tyr Ser Val Lys Ile Glu Thr Asn Glu Asn Asn Leu Glu Ser Ala | | | |
| | 485 | 490 | 495 |
| Lys Gly Leu Leu Asp Asp Leu Arg Asn Asp Leu Asp Arg Leu Phe Val | | | |
| | 500 | 505 | 510 |

Lys Val Glu Lys Ile His Glu Lys Val
 515 520

<210> 3039

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3039

Met Cys His Val Ile Val Thr Cys Arg Ser Met Leu Trp Thr Leu Leu
 1 5 10 15
 Ser Ile Val Val Ala Phe Ala Glu Leu Ile Ala Phe Met Ser Ala Asp
 20 25 30
 Trp Leu Thr Gly Lys Ala Arg Ser Arg Gly Gly Val Glu Pro Ala Gly
 35 40 45
 Pro Gly Gly Gly Ser Pro Glu Pro Tyr His Pro Thr Leu Gly Ile Tyr
 50 55 60
 Ala Arg Cys Ile Arg Asn Pro Gly Val Gln His Phe Gln Arg Asp Thr
 65 70 75 80
 Leu Cys Gly Pro Tyr Ala Glu Ser Phe Gly Glu Ile Ala Ser Gly Phe
 85 90 95
 Trp Gln Ala Thr Ala Ile Phe Leu Ala Val Gly Ile Phe Ile Leu Cys
 100 105 110
 Met Val Ala Leu Val Ser Val Phe Thr Met Cys Val Gln Ser Ile Met
 115 120 125
 Lys Lys Ser Ile Phe Asn Val Cys Gly Leu Leu Gln Gly Ile Ala Gly
 130 135 140
 Leu Phe Leu Ile Leu Gly Leu Ile Leu Tyr Pro Ala Gly Trp Gly Cys
 145 150 155 160
 Gln Lys Ala Ile Asp Tyr Cys Gly His Tyr Ala Ser Ala Tyr Lys Pro
 165 170 175
 Gly Asp Cys Ser Leu Gly Trp Ala Phe Tyr Thr Ala Ile Gly Gly Thr
 180 185 190
 Val Leu Thr Phe Ile Cys Ala Val Phe Ser Ala Gln Ala Glu Ile Ala
 195 200 205

Thr Ser Ser Asp Lys Val Gln Glu Glu Ile Glu Glu Gly Lys Asn Leu
 210 215 220

Ile Cys Leu Leu

225

<210> 3040

<211> 544

<212> PRT

<213> Homo sapiens

<400> 3040

Met Pro Pro Asn Leu Gly Asn Ala Gly Leu Leu Gly Arg Met Leu Asp
 1 5 10 15

Glu Lys Thr Pro Pro Ser Pro Ser Gly Gln Pro Glu Glu Pro Gly Met
 20 25 30

Val Arg Leu Val Cys Gly His His Asn Trp Ile Ala Val Ala Tyr Thr
 35 40 45

Gln Phe Leu Val Cys Tyr Arg Leu Lys Glu Ala Ser Gly Trp Gln Leu
 50 55 60

Val Phe Ser Ser Pro Arg Leu Asp Trp Pro Ile Glu Arg Leu Ala Leu
 65 70 75 80

Thr Ala Arg Val His Gly Gly Ala Leu Gly Glu His Asp Lys Met Val
 85 90 95

Ala Ala Ala Thr Gly Ser Glu Ile Leu Leu Trp Ala Leu Gln Ala Glu
 100 105 110

Gly Gly Gly Ser Glu Ile Gly Val Phe His Leu Gly Val Pro Val Glu
 115 120 125

Ala Leu Phe Phe Val Gly Asn Gln Leu Ile Ala Thr Ser His Thr Gly
 130 135 140

Arg Ile Gly Val Trp Asn Ala Val Thr Lys His Trp Gln Val Gln Glu
 145 150 155 160

Val Gln Pro Ile Thr Ser Tyr Asp Ala Ala Gly Ser Phe Leu Leu Leu
 165 170 175

Gly Cys Asn Asn Gly Ser Ile Tyr Tyr Val Asp Val Gln Lys Phe Pro
 180 185 190

Leu Arg Met Lys Asp Asn Asp Leu Leu Val Ser Glu Leu Tyr Arg Asp
 195 200 205
 Pro Ala Glu Asp Gly Val Thr Ala Leu Ser Val Tyr Leu Thr Pro Lys
 210 215 220
 Thr Ser Asp Ser Gly Asn Trp Ile Glu Ile Ala Tyr Gly Thr Ser Ser
 225 230 235 240
 Gly Gly Val Arg Val Ile Val Gln His Pro Glu Thr Val Gly Ser Gly
 245 250 255
 Pro Gln Leu Phe Gln Thr Phe Thr Val His Arg Ser Pro Val Thr Lys
 260 265 270
 Ile Met Leu Ser Glu Lys His Leu Ile Ser Val Cys Ala Asp Asn Asn
 275 280 285
 His Val Arg Thr Trp Ser Val Thr Arg Phe Arg Gly Met Ile Ser Thr
 290 295 300
 Gln Pro Gly Ser Thr Pro Leu Ala Ser Phe Lys Ile Leu Ala Leu Glu
 305 310 315 320
 Ser Ala Asp Gly His Gly Gly Cys Ser Ala Gly Asn Asp Ile Gly Pro
 325 330 335
 Tyr Gly Glu Arg Asp Asp Gln Gln Val Phe Ile Gln Lys Val Val Pro
 340 345 350
 Ser Ala Ser Gln Leu Phe Val Arg Leu Ser Ser Thr Gly Gln Arg Val
 355 360 365
 Cys Ser Val Arg Ser Val Asp Gly Ser Pro Thr Thr Ala Phe Thr Val
 370 375 380
 Leu Glu Cys Glu Gly Ser Arg Arg Leu Gly Ser Arg Pro Arg Arg Tyr
 385 390 395 400
 Leu Leu Thr Gly Gln Ala Asn Gly Ser Leu Ala Met Trp Asp Leu Thr
 405 410 415
 Thr Ala Met Asp Gly Leu Gly Gln Ala Pro Ala Gly Gly Leu Thr Glu
 420 425 430
 Gln Glu Leu Met Glu Gln Leu Glu His Cys Glu Leu Ala Pro Pro Ala
 435 440 445
 Pro Ser Ala Pro Ser Trp Gly Cys Leu Pro Ser Pro Ser Pro Arg Ile
 450 455 460
 Ser Leu Thr Ser Leu His Ser Ala Ser Ser Asn Thr Ser Leu Ser Gly
 465 470 475 480

His Arg Gly Ser Pro Ser Pro Pro Gln Ala Glu Ala Arg Arg Arg Gly
 485 490 495
 Gly Gly Ser Phe Val Glu Arg Cys Gln Glu Leu Val Arg Ser Gly Pro
 500 505 510
 Asp Leu Arg Arg Pro Pro Thr Pro Ala Pro Trp Pro Ser Ser Gly Leu
 515 520 525
 Gly Thr Pro Leu Thr Pro Pro Lys Met Lys Leu Asn Glu Thr Ser Phe
 530 535 540

<210> 3041

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3041

Met Asp Phe Ser Ala Pro Glu Leu Gln Leu Lys Pro Thr Arg Ala Ala
 1 5 10 15
 Thr His Arg Thr Thr Ser Phe Pro Pro Arg Arg Met Gln Trp Gly Trp
 20 25 30
 Leu Phe Gly Ser Leu His Ser Cys His Trp Leu Gly Arg Gln Pro Leu
 35 40 45
 Leu Ser Leu Lys Ala Val Val Ser Phe Arg Val Phe Ser Trp Lys Ser
 50 55 60
 Arg Arg Asn Ser Ser Leu Ile Arg Arg Trp Gly Pro Gly Gly Gly Ser
 65 70 75 80
 Gly Ile Arg Gly Gln Ala Ala His Arg Ile Arg Ala Ser Leu Cys Pro
 85 90 95
 Pro Asp Ala Pro Trp Gly Glu Ser Ser Val
 100 105

<210> 3042

<211> 574

<212> PRT

<213> Homo sapiens

<400> 3042

```

Met Val Gly Glu Arg His Ala Gly Asp Leu Met Val Pro Leu Gly Pro
  1              5              10              15
Arg Leu Gln Ala Tyr Pro Glu Glu Leu Ile Arg Gln Arg Pro Gly His
      20              25              30
Asp Gly His Pro Glu Tyr Leu Ile Arg Trp Ser Val Leu Lys Cys Gly
      35              40              45
Glu Val Gly Lys Val Gly Val Glu Glu Gly Lys Ala Glu His Ile Leu
      50              55              60
Met Trp Leu Ser Ala Pro Glu Val Tyr Ala Asn Cys Pro Gly Leu Leu
      65              70              75              80
Gly Glu Arg Ala Leu Ser Lys Gly Leu Gln His Glu Pro Ala Gly Val
      85              90              95
Ser Gly Ser Phe Pro Arg Asp Pro Gly Gly Leu Asp Glu Val Ala Met
      100             105             110
Gly Glu Met Glu Ala Asp Val Gln Ala Leu Val Arg Arg Ala Ala Arg
      115             120             125
Gln Leu Ala Glu Ser Gly Thr Pro Ser Leu Thr Ala Ala Val Leu His
      130             135             140
Thr Ile His Val Leu Ser Ala Tyr Ala Ser Ile Gly Pro Leu Thr Gly
      145             150             155             160

Val Phe Arg Glu Thr Gly Ala Leu Asp Leu Leu Met His Met Leu Cys
      165             170             175
Asn Pro Glu Pro Gln Ile Arg Arg Ser Ala Gly Lys Met Leu Gln Ala
      180             185             190
Leu Ala Ala His Asp Ala Gly Ser Arg Ala His Val Leu Leu Ser Leu
      195             200             205
Ser Gln Gln Asp Gly Ile Glu Gln His Met Asp Phe Asp Ser Arg Tyr
      210             215             220
Thr Leu Leu Glu Leu Phe Ala Glu Thr Thr Ser Ser Glu Glu His Cys
      225             230             235             240
Met Ala Phe Glu Gly Ile His Leu Pro Gln Ile Pro Gly Lys Leu Leu
      245             250             255

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Phe Ser Leu Val Lys Arg Tyr Leu Cys Val Thr Ser Leu Leu Asp Gln
 260 265 270
 Leu Asn Ser Ser Pro Glu Leu Gly Ala Gly Asp Gln Ser Ser Pro Cys
 275 280 285
 Ala Thr Arg Glu Lys Ser Arg Gly Gln Arg Glu Leu Glu Phe Ser Met
 290 295 300
 Ala Val Gly Asn Leu Ile Ser Glu Leu Val Arg Ser Met Gly Trp Ala
 305 310 315 320
 Arg Asn Leu Ser Glu Gln Gly Met Ser Pro Pro Arg Pro Thr Arg Ser
 325 330 335
 Ile Phe Gln Pro Tyr Ile Ser Gly Pro Ser Leu Leu Leu Pro Thr Ile
 340 345 350
 Val Thr Thr Pro Arg Arg Gln Gly Trp Val Phe Arg Gln Arg Ser Glu
 355 360 365
 Phe Ser Ser Arg Ser Gly Tyr Gly Glu Tyr Val Gln Gln Thr Leu Gln
 370 375 380
 Pro Gly Met Arg Val Arg Met Leu Asp Asp Tyr Glu Glu Ile Ser Ala
 385 390 395 400
 Gly Asp Glu Gly Glu Phe Arg Gln Ser Asn Asn Gly Ile Pro Pro Val
 405 410 415
 Gln Thr Leu Gly Glu Lys Ala Leu Gly Glu Ile Ser Val Ser Val Glu
 420 425 430
 Met Ala Glu Ser Leu Leu Gln Val Leu Ser Ser Arg Phe Glu Gly Ser
 435 440 445
 Thr Leu Asn Asp Leu Leu Asn Ser Gln Ile Tyr Thr Lys Tyr Gly Leu
 450 455 460
 Leu Ser Asn Glu Pro Ser Ser Ser Ser Thr Ser Arg Asn His Ser Cys
 465 470 475 480
 Thr Pro Asp Pro Glu Glu Glu Ser Lys Ser Glu Ala Ser Phe Ser Glu
 485 490 495
 Glu Glu Thr Glu Ser Leu Lys Ala Lys Ala Glu Ala Pro Lys Thr Glu
 500 505 510
 Ala Glu Pro Thr Lys Thr Arg Thr Glu Thr Pro Met Ala Gln Ser Asp
 515 520 525
 Ser Gln Leu Phe Asn Gln Leu Leu Val Thr Glu Gly Met Thr Leu Pro
 530 535 540

Thr Glu Met Lys Glu Ala Ala Ser Gly Glu Ser Gly Ser Gly Arg Lys
 545 550 555 560
 Gln Leu Glu Gln Val Leu Gly Ser Leu Ser Arg Arg Asn Gly
 565 570

<210> 3043

<211> 177

<212> PRT

<213> Homo sapiens

<400> 3043

Met Val Arg Ala Arg Val Val Leu Pro Gly Arg Ser Cys Gly Arg Gly
 1 5 10 15
 Gly Gly Val Cys Arg Val Gly Arg Cys Val Cys Ser Asp Thr Leu Val
 20 25 30
 Leu Gly Ala Ala Gly His Ile Thr Gly Asp Met Pro Asn Gly Val Arg
 35 40 45
 Gln Arg Ser Arg Val Ser Thr Val Glu Arg Pro Arg Trp Gln Gly Leu
 50 55 60
 Pro Gly Val His Thr Ser Arg Cys Val Thr Arg Glu Gly Pro Met His
 65 70 75 80
 Gly Ala Ser Ser Ser Cys Ile Arg Gln Cys Arg Ile Ser Pro Thr Val
 85 90 95
 Cys Phe Leu Leu Arg Gln Arg Pro His Ala Cys Leu Leu Pro Pro Leu
 100 105 110
 Gln Val Lys Arg Ser Arg Ser Lys Gly Gly Leu Ala Gly Pro Asp Gly
 115 120 125
 Thr Lys Ser Val Phe Gly Gln Met Cys Ala Lys Met Ser Ser Phe Gly
 130 135 140
 Pro Asp Ser Leu Leu Leu Pro His Arg Val Trp Lys Val Lys Phe Val
 145 150 155 160
 Gly Glu Asn Leu Pro Arg Ala Gly Ala Pro Val Ser Pro Ala Val Val
 165 170 175
 Ala

<210> 3044

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3044

```

Met Ser Ile Asp Gln Arg Lys Lys Met Leu Lys Asn Leu Arg Asn Thr
  1             5             10             15
Asn Tyr Asp Val Phe Glu Arg Ile Cys Trp Gly Leu Gly Ile Glu Tyr
             20             25             30
Thr Phe Pro Pro Leu Tyr Tyr Arg Arg Ala His Arg Arg Phe Val Thr
             35             40             45
Lys Lys Ala Leu Cys Ile Arg Val Phe Gln Glu Thr Gln Lys Leu Lys
             50             55             60
Lys Arg Arg Arg Ala Leu Lys Ala Ala Ala Ala Gln Lys Gln Ala
             65             70             75             80
Lys Arg Arg Asn Pro Asp Ser Pro Ala Lys Ala Ile Pro Lys Thr Leu
             85             90             95
Lys Asp Ser Gln
             100

```

<210> 3045

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3045

```

Met Gly Ile Ala Met Gly Pro Gly Ala Thr Arg Trp Thr Gln Gly Pro
  1             5             10             15
His Ser Thr Thr Val Pro Cys Asp Ala Ala Leu Met Thr Ser Arg His
             20             25             30
Gln Ser Trp Thr Pro Pro Gln Val Arg Ser Trp Ala Ser Tyr Gly Ser
             35             40             45

```


Gly Pro Leu Ala His Asp Ile His Thr Val Trp Val Ser Ser Ser Pro
 50 55 60
 Pro His Pro Thr Asp Gln Val Gln Phe Glu Lys Cys Gly Lys Arg Val
 65 70 75 80
 Asp Arg Leu Asp Gln Arg Arg Ser Lys Leu Arg Val Ala Gly Gly His
 85 90 95
 Pro Gly Asn Ser Pro Trp Thr Val Ser Leu Gly Asn Arg
 100 105

<210> 3046

<211> 491

<212> PRT

<213> Homo sapiens

<400> 3046

Met Met Ser Glu His Asp Leu Ala Asp Val Val Gln Ile Ala Val Glu
 1 5 10 15
 Asp Leu Ser Pro Asp His Pro Val Val Leu Glu Asn His Val Val Thr
 20 25 30
 Asp Glu Asp Glu Pro Ala Leu Lys Arg Gln Arg Leu Glu Ile Asn Cys
 35 40 45
 Gln Asp Pro Ser Ile Lys Ser Phe Leu Tyr Ser Ile Asn Gln Thr Ile
 50 55 60
 Cys Leu Arg Leu Asp Ser Ile Glu Ala Lys Leu Gln Ala Leu Glu Ala
 65 70 75 80
 Thr Cys Lys Ser Leu Glu Glu Lys Leu Asp Leu Val Thr Asn Lys Gln
 85 90 95
 His Ser Pro Ile Gln Val Pro Met Val Ala Gly Ser Pro Leu Gly Ala
 100 105 110
 Thr Gln Thr Cys Asn Lys Val Arg Cys Ala Val Pro Gly Arg Arg Gln
 115 120 125
 Asn Thr Ile Val Val Lys Val Pro Gly Gln Glu Asp Ser His His Glu
 130 135 140
 Asp Gly Glu Ser Gly Ser Glu Ala Ser Asp Ser Val Ser Ser Cys Gly
 145 150 155 160

Gln Ala Gly Ser Gln Ser Ile Gly Ser Asn Val Thr Leu Ile Thr Leu
 165 170 175
 Asn Ser Glu Glu Asp Tyr Pro Asn Gly Thr Trp Leu Gly Asp Glu Asn
 180 185 190
 Asn Pro Glu Met Arg Val Arg Cys Ala Ile Ile Pro Ser Asp Met Leu
 195 200 205
 His Ile Ser Thr Asn Cys Arg Thr Ala Glu Lys Met Ala Leu Thr Leu
 210 215 220
 Leu Asp Tyr Leu Phe His Arg Glu Val Gln Ala Val Ser Asn Leu Ser
 225 230 235 240
 Gly Gln Gly Lys His Gly Lys Lys Gln Leu Asp Pro Leu Thr Ile Tyr
 245 250 255
 Gly Ile Arg Cys His Leu Phe Tyr Lys Phe Gly Ile Thr Glu Ser Asp
 260 265 270
 Trp Tyr Arg Ile Lys Gln Ser Ile Asp Ser Lys Cys Arg Thr Ala Trp
 275 280 285
 Arg Arg Lys Gln Arg Gly Gln Ser Leu Ala Val Lys Ser Phe Ser Arg
 290 295 300
 Arg Thr Pro Asn Ser Ser Ser Tyr Cys Pro Ser Glu Pro Met Met Ser
 305 310 315 320
 Thr Pro Pro Pro Ala Ser Glu Leu Pro Gln Pro Gln Pro Gln Pro Gln
 325 330 335
 Ala Leu His Tyr Ala Leu Ala Asn Ala Gln Gln Val Gln Ile His Gln
 340 345 350
 Ile Gly Glu Asp Gly Gln Val Gln Val Ile Pro Gln Gly His Leu His
 355 360 365
 Ile Ala Gln Val Pro Gln Gly Glu Gln Val Gln Ile Thr Gln Asp Ser
 370 375 380
 Glu Gly Asn Leu Gln Ile His His Val Gly Gln Asp Gly Gln Leu Leu
 385 390 395 400
 Glu Ala Thr Arg Ile Pro Cys Leu Leu Ala Pro Ser Val Phe Lys Ala
 405 410 415
 Ser Ser Gly Gln Val Leu Gln Gly Ala Gln Leu Ile Ala Val Ala Ser
 420 425 430
 Ser Asp Pro Ala Ala Ala Gly Val Asp Gly Ser Pro Leu Gln Gly Ser
 435 440 445

Asp Ile Gln Val Gln Tyr Val Gln Leu Ala Pro Val Ser Asp His Thr
 450 455 460
 Ala Gly Ala Gln Thr Ala Glu Ala Leu Gln Pro Thr Leu Gln Pro Glu
 465 470 475 480
 Met Gln Leu Glu His Gly Ala Ile Gln Ile Gln
 485 490

<210> 3047

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3047

Met Ala Met Ala His Ala Gly Leu Cys Gly Trp Arg Gly Glu Val Ser
 1 5 10 15
 Leu Asp Ser Arg Glu Lys Pro Trp Gly Asn Pro Lys Gly Leu Arg Lys
 20 25 30
 Thr Gly Ile Gly Val Arg His Glu Gly Arg Glu Ser Leu Gly Lys Thr
 35 40 45
 Gly Arg Ala Val Arg Ser Pro Glu Gly Ser Cys Gly Cys Ser Ala Ala
 50 55 60
 Gly Arg Pro Arg Leu Ala Pro Pro Arg Arg Trp Ala Ser Pro Pro Gly
 65 70 75 80
 Ala His Pro Arg Ala Ala Ala Phe Leu His Ala Ala Gln Gly Ser Ser
 85 90 95
 Met Pro Gly Ala Gly Met Arg Gln Arg Phe Cys Ser Leu Leu Ala Ile
 100 105 110
 Leu Ala Ser Pro Asn Glu Arg Ala Leu Lys Met Lys Leu Leu Ile Asn
 115 120 125
 Ser Arg Val Arg Asn Ser Gly Leu Cys Gly Lys Gly Arg Ala Leu His
 130 135 140
 Phe Val Ser Asn Arg
 145

<210> 3048

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3048

```

Met Gly Leu Met Leu Thr Ile Pro Leu Ser Asn Arg Ser Phe Met Pro
  1             5             10             15
Asn Leu Val Pro Pro Lys Ile Pro Asp Gly Glu Arg Val Asp Phe Asp
      20             25             30
Asp Ile His Gly Lys Arg Thr Glu Lys Asp Leu Asn Glu Leu Gln Ala
      35             40             45
Leu Ile Glu Ala His Phe Glu Asn Arg Lys Lys Glu Glu Glu Glu Leu
      50             55             60
Val Ser Leu Lys Asp Arg Ile Glu Arg Arg Arg Ala Glu Arg Ala Glu
      65             70             75             80
Gln Gln Arg Ile Arg Asn Glu Arg Glu Lys Glu Arg Gln Asn Arg Leu
      85             90             95
Ala Glu Glu Arg Ala Arg Arg Glu Glu Glu Glu Asn Arg Arg Lys Ala
      100            105            110
Glu Asp Glu Ala Arg Lys Lys Lys Ala Leu Ser Asn Met Met His Phe
      115            120            125
Gly Gly Tyr Ile Gln Lys Gln Ala Gln Thr Glu Arg Lys Ser Gly Lys
      130            135            140
Arg Gln Thr Glu Arg Glu Lys Lys Lys Lys Ile Leu Ala Glu Arg Arg
      145            150            155            160
Lys Val Leu Ala Ile Asp His Leu Asn Glu Asp Gln Leu Arg Glu Lys
      165            170            175

Ala Lys Glu Leu Trp Gln Ser Ile Tyr Asn Leu Glu Ala Glu Lys Phe
      180            185            190
Asp Leu Gln Glu Lys Phe Lys Gln Gln Lys Tyr Glu Ile Asn Val Leu
      195            200            205
Arg Asn Arg Ile Asn Asp Asn Gln Lys Val Ser Lys Thr Arg Gly Lys
      210            215            220
Ala Lys Val Ile Gly Arg Trp Lys

```

225

230

<210> 3049

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3049

```

Met Asp Trp Thr Trp Arg Val Phe Cys Leu Leu Ala Val Ala Pro Gly
  1             5             10             15
Val Gln Ser Gln Glu Gln Leu Leu Gln Ser Ala Thr Glu Val Lys Gln
          20             25             30
Pro Gly Asp Ser Val Lys Val Ser Cys Arg Ala Ser Glu Asp Thr Phe
      35             40             45
Thr Ser Ser Tyr Phe His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
      50             55             60
Glu Trp Met Gly Ile Ile Asn Pro Gly Gly Gly Arg Thr Asn Tyr Ala
      65             70             75             80
Gln Lys Phe Gln Asp Arg Val Thr Met Thr Trp Asp Met Ser Ser Gly
          85             90             95
Thr Val Tyr Met Glu Leu Asp Ile Leu Thr Ser Gln Asp Thr Ala Val
      100             105             110
Tyr Phe Cys Ala Lys Ser Arg Gly Gly Tyr Tyr Asp Ala Glu Asp Asn
      115             120             125
Trp Phe Asp Pro Trp Gly Leu Gly Thr Gln Val Ile Val Ser Ser Ala
      130             135             140
Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr Gln
      145             150             155             160
Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe Pro
          165             170             175
Gln Glu Ser Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val Thr
      180             185             190
Ala Arg Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr
      195             200             205
Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly Lys

```

| | | | |
|---|-----|-----|-----|
| 210 | 215 | 220 | |
| Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp Val | | | |
| 225 | 230 | 235 | 240 |
| Thr Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser | | | |
| | 245 | 250 | 255 |
| Thr Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser Leu | | | |
| | 260 | 265 | 270 |
| His Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu | | | |
| | 275 | 280 | 285 |
| Thr Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe Thr | | | |
| | 290 | 295 | 300 |
| Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Glu Arg | | | |
| 305 | 310 | 315 | 320 |
| Asp Leu Cys Gly Arg Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala | | | |
| | 325 | 330 | 335 |
| Glu Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr Pro | | | |
| | 340 | 345 | 350 |
| Glu Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn Thr | | | |
| | 355 | 360 | 365 |
| Phe Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala | | | |
| | 370 | 375 | 380 |
| Leu Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro | | | |
| 385 | 390 | 395 | 400 |
| Lys Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg | | | |
| | 405 | 410 | 415 |
| Glu Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr | | | |
| | 420 | 425 | 430 |
| Thr Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp | | | |
| | 435 | 440 | 445 |
| Lys Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro | | | |
| | 450 | 455 | 460 |
| Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr | | | |
| 465 | 470 | 475 | 480 |
| His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys Tyr | | | |
| | 485 | 490 | 495 |

<210> 3050

<211> 546

<212> PRT

<213> Homo sapiens

<400> 3050

```

Met Asp Leu Arg Ala Cys Lys Glu Leu Arg Pro Phe Ser Asn Pro Glu
  1             5             10             15
Leu Gly Leu Arg Asp Ala Leu Gln Cys Leu Asn Ser Ser Asp Trp Gln
      20             25             30
Met Lys Glu Lys Gly Leu Val Ser Ile Gln Arg Leu Ala Ala Cys His
      35             40             45
Ser Glu Val Leu Thr Gly Lys Leu His Asp Val Cys Leu Val Val Thr
      50             55             60
Gly Glu Val Thr Asn Leu Arg Ser Lys Val Ser His Leu Ala Ile Ser
      65             70             75             80
Thr Leu Gly Asp Leu Phe Gln Ala Leu Lys Lys Asn Met Asp Gln Glu
      85             90             95
Ala Glu Glu Ile Ala Arg Cys Leu Leu Gln Lys Met Ala Asp Thr Asn
      100            105            110
Glu Phe Ile Gln Arg Ala Ala Gly Gln Ser Leu Arg Ala Met Val Glu
      115            120            125
Asn Val Thr Leu Ala Arg Ser Leu Val Val Leu Thr Ser Ala Gly Val
      130            135            140
Tyr His Arg Asn Pro Leu Ile Arg Lys Tyr Ala Ala Glu His Leu Ser
      145            150            155            160
Ala Val Leu Glu Gln Ile Gly Ala Glu Lys Leu Leu Ser Gly Thr Arg
      165            170            175
Asp Ser Thr Asp Met Leu Val His Asn Leu Val Arg Leu Ala Gln Asp
      180            185            190
Ser Asn Gln Asp Thr Arg Phe Tyr Gly Arg Lys Met Val Asn Ile Leu
      195            200            205
Met Ala Asn Thr Lys Phe Asp Ala Phe Leu Lys Gln Ser Leu Pro Ser
      210            215            220
Tyr Asp Leu Gln Lys Val Met Ala Ala Ile Lys Gln Gln Gly Ile Glu

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| | | | |
|---|-----|-----|-----|
| 225 | 230 | 235 | 240 |
| Asp Asn Asp Glu Leu Pro Ser Ala Lys Gly Cys Lys Val Leu Arg Ser | | | |
| | 245 | 250 | 255 |
| Leu Val Val Cys Glu Asn Gly Leu Pro Ile Lys Glu Gly Leu Ser Cys | | | |
| | 260 | 265 | 270 |
| Asn Gly Pro Arg Leu Val Gly Leu Arg Ser Thr Leu Gln Gly Arg Gly | | | |
| | 275 | 280 | 285 |
| Glu Met Val Glu Gln Leu Arg Glu Leu Thr Arg Leu Leu Glu Ala Lys | | | |
| | 290 | 295 | 300 |
| Asp Phe Arg Ser Arg Met Glu Gly Val Gly Gln Leu Leu Glu Leu Cys | | | |
| 305 | 310 | 315 | 320 |
| Lys Ala Lys Thr Glu Leu Val Thr Ala His Leu Val Gln Val Phe Asp | | | |
| | 325 | 330 | 335 |
| Ala Phe Thr Pro Arg Leu Gln Asp Ser Asn Lys Lys Val Asn Gln Trp | | | |
| | 340 | 345 | 350 |
| Ala Leu Glu Ser Phe Ala Lys Met Ile Pro Leu Leu Arg Glu Ser Leu | | | |
| | 355 | 360 | 365 |
| His Pro Met Leu Leu Ser Ile Ile Ile Thr Val Ala Asp Asn Leu Asn | | | |
| | 370 | 375 | 380 |
| Ser Lys Asn Ser Gly Ile Tyr Ala Ala Ala Val Ala Val Leu Asp Ala | | | |
| 385 | 390 | 395 | 400 |
| Met Val Glu Ser Leu Asp Asn Leu Cys Leu Leu Pro Ala Leu Ala Gly | | | |
| | 405 | 410 | 415 |
| Arg Val Arg Phe Leu Ser Gly Arg Ala Val Leu Asp Val Thr Asp Arg | | | |
| | 420 | 425 | 430 |
| Leu Ala Val Leu Val Ala Ser Val Tyr Pro Arg Lys Pro Gln Ala Val | | | |
| | 435 | 440 | 445 |
| Glu Arg His Val Leu Pro Ile Leu Trp His Phe Leu Asn Thr Ala Thr | | | |
| | 450 | 455 | 460 |
| Arg Asn Gly Ala Leu Pro Val Pro Ser Gly Asn Ile Arg Gly Val Val | | | |
| 465 | 470 | 475 | 480 |
| Cys Arg Leu Ser Arg Ser Leu Gln Glu His Met Gly Ser Arg Leu Leu | | | |
| | 485 | 490 | 495 |
| Asp Phe Ala Ala Ser Gln Pro Lys His Val Leu Lys Thr Leu Gln Glu | | | |
| | 500 | 505 | 510 |
| Leu Leu Asp Ser Glu Ser Leu Gly Gly Ser Arg Lys Ala Thr Asp Arg | | | |

515 520 525
 Gly Val Ala Pro Asp Ser Lys Thr Thr Gly Ser Ser Tyr Pro Phe Gln
 530 535 540
 Leu Asp
 545

<210> 3051

<211> 569

<212> PRT

<213> Homo sapiens

<400> 3051

Met Ser Gln Val Ile Ala Ser Gly Ala Asp Leu Ile Ala Gln Thr Leu
 1 5 10 15
 Lys Asn Gln Gly Val Gln Val Ile Phe Gly Ile Val Gly Ile Pro Val
 20 25 30
 Val Glu Val Ala Glu Ala Cys Val Ala Ala Gly Ile Arg Phe Ile Gly
 35 40 45
 Phe Arg Asn Glu Gln Ser Ala Ala Tyr Ala Ala Ser Ile Tyr Gly Tyr
 50 55 60
 Leu Ser Gly Arg Pro Gly Val Cys Leu Ser Val Gly Gly Pro Gly Val
 65 70 75 80
 Val His Ala Leu Ala Gly Leu Leu Asn Ser Lys Ile Asn Cys Trp Pro
 85 90 95
 Leu Ile Leu Leu Ser Gly Ser Cys Glu Thr Asp Gln Thr Asp Met Gly
 100 105 110
 Ala Phe Gln Glu Leu Asp Gln Val Glu Ala Ala Arg Gln Tyr Cys Lys
 115 120 125
 Tyr Ser Ala Arg Pro Ala Ser Leu Glu Gln Leu Pro Phe Val Ile Glu
 130 135 140
 Lys Ala Phe Arg Thr Ala Leu Tyr Gly Arg Pro Gly Ala Ala Tyr Val
 145 150 155 160
 Asp Leu Pro Ala Asp Tyr Ile Gln Tyr Pro Ile Thr Asn Lys Lys Val
 165 170 175
 Phe Asp Ala Val Gln Val Ala Arg Val Pro Asn Ala Pro Lys Ser Met

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Ala Asp Gln Thr Asn Val His Gln Ala Val Ala Leu Leu Lys His Ala | | |
| 195 | 200 | 205 |
| Lys Ser Pro Leu Ile Val Ile Gly Lys Gly Ala Ala Tyr Ala Arg Ala | | |
| 210 | 215 | 220 |
| Glu Asn Glu Ile Arg Ala Leu Val Glu Lys Thr Gln Ala Pro Phe Leu | | |
| 225 | 230 | 235 |
| Pro Thr Pro Met Gly Lys Gly Val Ile Ser Asp Ser His Pro Leu Cys | | |
| 245 | 250 | 255 |
| Val Ser Ala Ala Arg Ser Lys Ala Leu Lys Asp Ala Asp Val Val Leu | | |
| 260 | 265 | 270 |
| Leu Ile Gly Ala Arg Leu Asn Trp Ile Leu His Tyr Gly His Ser Pro | | |
| 275 | 280 | 285 |
| Arg Trp Ser Asn Lys Val Arg Phe Ile Gln Ile Asp Ile Ala Pro Glu | | |
| 290 | 295 | 300 |
| Glu Leu Gly Asn Asn Arg Gln Asp Thr Leu Pro Leu Leu Gly Asp Ile | | |
| 305 | 310 | 315 |
| Gln Leu Val Val Ser Gln Ile Thr Gln Ala Leu Thr Gly Lys Leu Ser | | |
| 325 | 330 | 335 |
| Asn Ile Asn Pro Asp Tyr Val Ser Gly Leu Val Asn Lys Val Lys Gln | | |
| 340 | 345 | 350 |
| Asn Val Glu Lys Thr Lys Thr Ala Gly Ser Lys Gly Ser Asp Ser Ala | | |
| 355 | 360 | 365 |
| Ile Leu Asn Tyr Ser Thr Ala Phe Thr Val Ile Lys Ser Leu Leu Pro | | |
| 370 | 375 | 380 |
| Glu Asn Asp Ile Val Tyr Val Ser Glu Gly Ala Asn Thr Met Asp Ile | | |
| 385 | 390 | 395 |
| Gly Arg Ser Tyr Phe Asp Val His Glu Pro Arg His Arg Leu Asp Ala | | |
| 405 | 410 | 415 |
| Gly Thr Gly Ala Thr Met Gly Val Gly Met Gly Tyr Ala Ile Gly Ala | | |
| 420 | 425 | 430 |
| Gln Ser Tyr Tyr Gly Asp Ala Lys Arg Val Val Ser Ile Val Gly Asp | | |
| 435 | 440 | 445 |
| Ser Ala Phe Gly Phe Ser Ala Met Glu Leu Glu Thr Ala Ile Arg Ser | | |
| 450 | 455 | 460 |
| Arg Leu Pro Leu Leu Ile Ile Val Ile Asn Asn Asn Gly Ile Tyr His | | |

465 470 475 480
 Gly Leu Glu Asp Glu Glu Tyr His Ala Ala Leu Lys Asp Gly Thr Leu
 485 490 495
 Pro Thr Thr Ser Leu Ser Val Glu Thr Arg Tyr Asp Leu Ile Ser Glu
 500 505 510
 Ala Cys Gly Gly Lys Gly Trp Phe Val Lys Asn Arg Val Glu Leu Ala
 515 520 525
 Lys Ala Val Lys Glu Ala Leu Ala Ala Lys Asp Gln Thr Cys Val Val
 530 535 540
 Asn Val Met Ile Ala Pro Gly Gly Arg Thr Lys Leu Asp Phe Gly Trp
 545 550 555 560
 Met Gln Lys Thr Gln Lys Ala Arg Leu
 565

<210> 3052

<211> 307

<212> PRT

<213> Homo sapiens

<400> 3052

Met Pro Lys Val Tyr Ser Arg Lys Asp Pro Leu Leu Phe Cys Arg Arg
 1 5 10 15
 Phe Val Gly Gly Ile Leu Ile Ala Arg Lys Ile Phe Trp Pro Leu Glu
 20 25 30
 Asn Val Leu Leu Lys Ser Gly Met Leu Ala Glu Lys Val Met Lys Lys
 35 40 45
 Glu Asn His Ile Leu Ser Val Asp Asp Leu Glu Gln Ala Leu Glu Leu
 50 55 60
 Thr Asp Lys Asp Asp Ile Lys Asp Glu Gln Ser Met Leu Lys Gly Ile
 65 70 75 80
 Ile Arg Phe Gly Asp Glu Thr Ala Lys Glu Val Met Thr Ser Arg Gln
 85 90 95
 Asn Ile Val Asp Leu Asp Ile His Ser Thr Tyr Pro Glu Val Leu Lys
 100 105 110

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Ala | Glu | Asn | Asn | Tyr | Ser | Arg | Ile | Pro | Val | Tyr | Gln | Asp | Asn |
| 115 | | | 120 | | | 125 | | | | | | | | | |
| Thr | Asp | Asn | Ile | Arg | Gly | Ile | Leu | Tyr | Ile | Lys | Asp | Leu | Leu | Pro | His |
| 130 | | | 135 | | | 140 | | | | | | | | | |
| Leu | Glu | Lys | Pro | Val | Ser | Phe | Arg | Trp | Gln | Ser | Leu | Ile | Arg | Pro | Pro |
| 145 | | | 150 | | | 155 | | | | | | 160 | | | |
| Tyr | Phe | Val | Pro | Glu | Thr | Lys | Lys | Ile | Asp | Asp | Leu | Leu | Arg | Glu | Phe |
| 165 | | | 170 | | | 175 | | | | | | | | | |
| Gln | Glu | Asn | Lys | Val | His | Ile | Ala | Ile | Val | Val | Asp | Glu | Phe | Gly | Gly |
| 180 | | | 185 | | | 190 | | | | | | | | | |
| Thr | Ser | Gly | Ile | Val | Thr | Leu | Glu | Asp | Ile | Leu | Glu | Glu | Ile | Val | Gly |
| 195 | | | 200 | | | 205 | | | | | | | | | |
| Glu | Ile | Asn | Asp | Glu | Tyr | Asp | Glu | Glu | Glu | Lys | Phe | Tyr | Ser | Lys | Leu |
| 210 | | | 215 | | | 220 | | | | | | | | | |
| Asn | Tyr | Asn | Thr | Phe | Ile | Phe | Glu | Gly | Lys | Thr | Leu | Leu | Thr | Asp | Phe |
| 225 | | | 230 | | | 235 | | | | | | 240 | | | |
| Cys | Lys | Ile | Leu | Asn | Val | Asp | Asp | Glu | Glu | Phe | Glu | Glu | Val | Glu | Gly |
| 245 | | | 250 | | | 255 | | | | | | | | | |
| Asp | Ala | Asp | Thr | Leu | Ala | Gly | Leu | Leu | Leu | Glu | Ile | Lys | Gly | Asp | Phe |
| 260 | | | 265 | | | 270 | | | | | | | | | |
| Pro | Ser | Ile | His | Glu | Lys | Ile | Glu | Tyr | Lys | Asn | Tyr | Ser | Phe | Glu | Val |
| 275 | | | 280 | | | 285 | | | | | | | | | |
| Leu | Gly | Val | Glu | Glu | Arg | Arg | Ile | Ser | Arg | Ile | Lys | Val | Val | Val | His |
| 290 | | | 295 | | | 300 | | | | | | | | | |
| Pro | | | Gly | | | Lys | | | | | | | | | |
| 305 | | | | | | | | | | | | | | | |

<210> 3053

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3053

Met Ala Ser Lys Phe Thr Asp Gly Asp Leu Asn Asn Asp Gly Pro His
1 5 10 15

Asp Glu Gly Leu Arg Ser Ser Gln Gln Asn Pro Lys Val Gln Lys Tyr
 20 25 30
 Ile Ser Phe Ser Leu Pro Leu Ser Glu Ala Thr Ala His Ile Tyr Pro
 35 40 45
 Gly Asp Ser Ala Val Ala Asn Lys Gln Pro Ser Pro Gln Leu Ser Ser
 50 55 60
 Glu Asp Ser Asp Ser Asp Tyr Glu Leu Cys Pro Glu Ile Thr Leu Thr
 65 70 75 80
 Tyr Thr Glu Glu Phe Ser Asp Asp Asp Leu Glu Tyr Leu Glu Cys Ser
 85 90 95
 Asp Val Met Thr Asp Tyr Ser Asn Ala Val Trp Gln Arg Asn Leu Leu
 100 105 110
 Gly Thr Glu His Val Phe Leu Leu Glu Ser Asp Asp Glu Glu Met Glu
 115 120 125
 Phe Gly Glu His Cys Leu Gly Gly Cys Glu His Phe Leu Ser Gly Met
 130 135 140
 Gly Cys Gly Ser Arg Val Ser Gly Asp Ala Gly Pro Met Val Ala Thr
 145 150 155 160
 Ala Gly Phe Cys Gly His His Ser Gln Pro Gln Glu Val Gly Val Arg
 165 170 175
 Ser Ser Arg Val Ser Lys His Gly Pro Ser Ser Pro Gln Thr Gly Met
 180 185 190
 Thr Leu Ile Leu Gly Pro His Gln Asp Gly Thr Ser Ser Val Thr Glu
 195 200 205
 Gln Gly Arg Tyr Lys Leu Pro Thr Ala Pro Glu Ala Ala Glu Asn Asp
 210 215 220
 Tyr Pro Gly Ile Gln Gly Glu Thr Arg Asp Ser His Gln Ala Arg Glu
 225 230 235 240
 Glu Phe Ala Ser Asp Asn Leu Leu Asn Met Asp Glu Ser Val Arg Glu
 245 250 255
 Thr Glu Met Lys Leu Leu Ser Gly Glu Ser Glu Asn Ser Gly Met Ser
 260 265 270
 Gln Cys Trp Glu Thr Ala Ala Asp Lys Arg Val Gly Gly Lys Asp Leu
 275 280 285
 Trp Ser Lys Arg Gly Ser Arg Lys Ser Ala Arg Val Arg Gln Pro Gly
 290 295 300

Met Lys Gly Asn Pro Lys Lys Pro Asn Ala Asn Leu Arg Glu Ser Thr
 305 310 315 320
 Thr Glu Gly Thr Leu His Leu Cys Ser Ala Lys Glu Ser Ala Glu Pro
 325 330 335
 Pro Leu Thr Gln Ser Asp Lys Arg Glu Thr Ser His Thr Thr Ala Ala
 340 345 350
 Ala Thr Gly Arg Ser Ser His Ala Asp Ala Arg Glu Cys Ala Ile Ser
 355 360 365
 Thr Gln Ala Glu Gln Glu Ala Lys Thr Leu Gln Thr Ser Thr Asp Ser
 370 375 380
 Val Ser Lys Glu Gly Asn Thr Asn Cys Lys Gly Glu Gly Met Gln Val
 385 390 395 400
 Asn Thr Leu Phe Glu Thr Ser Gln Val Pro Asp Trp Ser Asp Pro Pro
 405 410 415
 Gln Val Arg Leu Phe Phe
 420

<210> 3054

<211> 184

<212> PRT

<213> Homo sapiens

<400> 3054

Met Ala Ala Phe Tyr Leu Val Ala Arg Glu Glu Ile Ala Leu Leu Leu
 1 5 10 15
 Gly Ser Pro Leu Ser Arg Pro Ala Val Ser Thr Phe Cys Phe Leu Phe
 20 25 30
 Phe Leu Glu Thr Gln Phe Arg Ser Cys Cys Pro Asp Trp Ser Ala Met
 35 40 45
 Ser Arg Tyr Gln Leu Thr Ser Thr Ser Ala Ser Trp Val Gln Ala Ile
 50 55 60
 Leu Leu Pro Arg Pro Pro Leu Val Ala Gly Ile Ala Ala Ala His His
 65 70 75 80
 Gln Ala Arg Leu Ile Phe Val Phe Leu Val Gln Thr Gly Phe Cys Arg
 85 90 95

Val Asp Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Ala
 100 105 110
 Ser Ala Ser Gln Ser Ala Gly Ile Ala Gly Val Ser His Cys Ala Gln
 115 120 125
 Pro His Phe Ser Leu Ser Ser Gln Ser Leu Gly His Lys Ile Pro His
 130 135 140
 His Ser Pro Ala Lys Lys Met Pro Thr Phe Leu Asp Leu Ile Val Ser
 145 150 155 160
 Leu Lys Gln Asn Lys Thr Lys Phe Asn Ile Tyr Thr Pro Arg Thr Leu
 165 170 175
 Val Ser Glu Ile Leu Gly Leu Ile
 180

<210> 3055

<211> 508

<212> PRT

<213> Homo sapiens

<400> 3055

Met Leu Leu Ser Gln Gly Leu Gly Val Leu Arg Val Ala Trp Asp Ser
 1 5 10 15
 Arg Ala Cys Ser Pro Ala Leu Arg Ala Leu Leu Arg Lys Leu Gly Gly
 20 25 30
 Leu Phe Leu Pro Pro Glu Ala Ser Leu Ser Leu Asp Ser Ser Glu Gly
 35 40 45
 Leu Leu Ala Arg Ala Val Val Gln Ala Ala Ser Ala Pro Leu Gly Leu
 50 55 60
 Trp Thr Gly Ala Leu Ala Val Leu Arg Ser Leu Trp Ser Arg Trp Gly
 65 70 75 80
 Cys Ser His Arg Ile Cys Ser Arg Val His Leu Ala Gln Pro Phe Ser
 85 90 95
 Leu Gln Glu Tyr Ile Val Ser Ala Arg Ser Cys Trp Gly Gly Arg Gln
 100 105 110
 Thr Leu Glu Gln Leu Leu Gln Pro Ile Val Leu Gly Gln Cys Thr Ala
 115 120 125

| | | | |
|---|-----|-----|-----|
| Val Pro Asp Thr Glu Lys Glu Gln Glu Trp Thr Pro Ile Thr Gly Pro | | | |
| 130 | 135 | 140 | |
| Leu Leu Ala Leu Lys Glu Glu Asp Gln Leu Leu Val Arg Arg Leu Ser | | | |
| 145 | 150 | 155 | 160 |
| Cys His Val Leu Ser Ala Ser Val Gly Ser Ser Ala Val Met Ser Thr | | | |
| | 165 | 170 | 175 |
| Ala Ile Met Ala Thr Leu Leu Leu Phe Lys His Gln Lys Leu Leu Gly | | | |
| | 180 | 185 | 190 |
| Glu Phe Ser Trp Leu Thr Glu Glu Ile Leu Leu Arg Gly Phe Asp Val | | | |
| | 195 | 200 | 205 |
| Gly Phe Ser Gly Gln Leu Arg Ser Leu Leu Gln His Ser Leu Ser Leu | | | |
| | 210 | 215 | 220 |
| Leu Arg Ala His Val Ala Leu Leu Arg Ile Arg Gln Gly Asp Leu Leu | | | |
| 225 | 230 | 235 | 240 |
| Val Val Pro Gln Pro Gly Pro Gly Leu Thr His Leu Ala Gln Leu Ser | | | |
| | 245 | 250 | 255 |
| Ala Glu Leu Leu Pro Val Phe Leu Ser Glu Ala Val Gly Ala Cys Ala | | | |
| | 260 | 265 | 270 |
| Val Arg Gly Leu Leu Ala Gly Arg Val Pro Pro Gln Gly Pro Trp Glu | | | |
| | 275 | 280 | 285 |
| Leu Gln Gly Ile Leu Leu Leu Ser Gln Asn Glu Leu Tyr Arg Gln Ile | | | |
| | 290 | 295 | 300 |
| Leu Leu Leu Met His Leu Leu Pro Gln Asp Leu Leu Leu Leu Lys Pro | | | |
| 305 | 310 | 315 | 320 |
| Cys Gln Ser Ser Tyr Cys Tyr Cys Gln Glu Val Leu Asp Arg Leu Ile | | | |
| | 325 | 330 | 335 |
| Gln Cys Gly Leu Leu Val Ala Glu Glu Thr Pro Gly Ser Arg Pro Ala | | | |
| | 340 | 345 | 350 |
| Cys Asp Thr Gly Arg Gln Arg Leu Ser Arg Lys Leu Leu Trp Lys Pro | | | |
| | 355 | 360 | 365 |
| Ser Gly Asp Phe Thr Asp Ser Asp Ser Asp Asp Phe Gly Glu Ala Asp | | | |
| | 370 | 375 | 380 |
| Gly Arg Tyr Phe Arg Leu Ser Gln Gln Ser His Cys Pro Asp Phe Phe | | | |
| 385 | 390 | 395 | 400 |
| Leu Leu Leu Cys Arg Leu Leu Ser Pro Leu Leu Lys Ala Phe Ala Gln | | | |
| | 405 | 410 | 415 |

<211> 716

<212> PRT

<213> Homo sapiens

<400> 3056

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Thr | Thr | Gly | Asp | Gln | Gly | Ile | Glu | Gly | Met | Ala | Tyr | Met | Asp |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Glu | Asn | Arg | Asn | Ile | Thr | Phe | Thr | Cys | Pro | Arg | Thr | Pro | Ser | Glu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Asn | Lys | Ser | Ser | Pro | Leu | Glu | Val | Leu | Gly | Ser | Ala | Ala | Cys | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Leu | Pro | Thr | Pro | Thr | Pro | Gln | Val | Val | Lys | Glu | Gly | Asp | Ser | Phe |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Asp | Thr | Leu | Ala | Lys | Asn | Gly | Gln | Glu | Ile | Ala | Pro | Ala | Gln | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Lys | Ser | Leu | Met | Val | Asp | Asn | Tyr | Thr | Lys | Asp | Gly | Val | Pro | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Glu | Arg | Pro | Lys | Gly | Pro | Ser | Ala | Val | Val | Pro | Ser | Thr | Ser | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Gly | Val | Ala | Leu | Pro | Ile | Thr | Thr | Ala | Ile | Glu | Thr | Val | Asn | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |

His Gly Asp His Ser Leu Lys Asn Lys Ala Glu Leu Ala Asp Ser Met
 130 135 140
 Lys Asn Glu Ala Gly Ile Asp Glu Gly His Val Ile Gly Glu Ser Glu
 145 150 155 160
 Ser Val His Ser Gly Ala Ser Lys His Ser Val Glu Lys Val Thr Glu
 165 170 175
 Leu Ala Lys Gly His Leu Leu Pro Gly Val Pro Val Glu Asp Gln Ser
 180 185 190
 Leu Pro Gly Glu Ala Arg Ala Leu Glu Gly Tyr Ala Asp Arg Gly Asn
 195 200 205
 Phe Pro Ala His Pro Val Asn Glu Glu Lys Glu Thr Lys Glu Gly Ser
 210 215 220
 Val Ala Val Gln Ile Pro Asp Leu Leu Glu Asp Lys Ala Gln Lys Leu
 225 230 235 240
 Ser Phe Cys Glu Asp Gln Asn Ala Gln Asp Arg Asn Ser Lys Gly Ser
 245 250 255
 Asp Ser Leu Asn Lys Lys Val Asp Leu Thr Leu Leu Ser Pro Lys Ser
 260 265 270
 Glu Asn Asp Lys Leu Lys Glu Ile Ser Leu Ala Cys Lys Ile Thr Glu
 275 280 285
 Leu Glu Ser Val Ser Leu Pro Thr Pro Glu Ile Gln Ser Asp Phe Leu
 290 295 300
 His Ser Lys Val Glu Ala Pro Pro Ser Glu Val Ala Asp Thr Leu Val
 305 310 315 320
 Ile Met Thr Ala Ser Lys Gly Val Arg Leu Pro Glu Pro Lys Asp Lys
 325 330 335
 Ile Leu Glu Thr Pro Gln Lys Met Thr Glu Lys Ser Glu Ser Lys Thr
 340 345 350
 Pro Gly Glu Gly Lys Lys Glu Asp Lys Ser Arg Met Ala Glu Pro Met
 355 360 365
 Lys Gly Tyr Met Arg Pro Thr Lys Ser Arg Gly Leu Thr Pro Leu Leu
 370 375 380
 Pro Lys Ser Thr Ile Gln Glu Gln Glu Arg His Lys Gln Leu Lys Ser
 385 390 395 400
 Ala Gly Ile Ala Arg Pro Glu Glu Gly Arg Pro Val Val Ser Gly Thr
 405 410 415

Gly Asn Asp Ile Thr Thr Pro Pro Asn Lys Glu Leu Pro Pro Ser Pro
 420 425 430
 Glu Lys Lys Thr Lys Pro Leu Ala Thr Thr Gln Pro Ala Lys Thr Ser
 435 440 445
 Thr Ser Lys Ala Lys Thr Gln Pro Thr Ser Leu Pro Lys Gln Pro Ala
 450 455 460
 Pro Thr Thr Ile Gly Gly Leu Asn Lys Lys Pro Met Ser Leu Ala Ser
 465 470 475 480
 Gly Leu Val Pro Ala Ala Pro Pro Lys Arg Pro Ala Val Ala Ser Ala
 485 490 495
 Arg Pro Ser Ile Leu Pro Ser Lys Asp Val Lys Pro Lys Pro Ile Ala
 500 505 510
 Asp Ala Lys Ala Pro Glu Lys Arg Ala Ser Pro Ser Lys Pro Ala Ser
 515 520 525
 Ala Pro Ala Ser Arg Ser Gly Ser Lys Ser Thr Gln Thr Val Ala Lys
 530 535 540
 Thr Thr Thr Ala Ala Ala Val Ala Ser Thr Gly Pro Ser Ser Arg Ser
 545 550 555 560
 Pro Ser Thr Leu Leu Pro Lys Lys Pro Thr Ala Ile Lys Thr Glu Gly
 565 570 575
 Lys Pro Ala Glu Val Lys Lys Met Thr Ala Lys Ser Val Pro Ala Asp
 580 585 590
 Leu Ser Arg Pro Lys Ser Thr Ser Thr Ser Ser Met Lys Lys Thr Thr
 595 600 605
 Thr Leu Ser Gly Thr Ala Pro Ala Ala Gly Val Val Pro Ser Arg Val
 610 615 620
 Lys Ala Thr Pro Met Pro Ser Arg Pro Ser Thr Thr Pro Phe Ile Asp
 625 630 635 640
 Lys Lys Pro Thr Ser Ala Lys Pro Ser Ser Thr Thr Pro Arg Leu Ser
 645 650 655
 Arg Leu Ala Thr Asn Thr Ser Ala Pro Asp Leu Lys Asn Val Arg Ser
 660 665 670
 Lys Ala Lys Val Glu Lys Lys Thr Glu Ala Ala Ala Thr Thr Arg Lys
 675 680 685
 Pro Glu Ser Asn Ala Val Thr Lys Thr Ala Gly Pro Ile Ala Ser Ala

690 695 700
 Gln Lys Gln Pro Ala Gly Lys Val Gln Ile Val Ser
 705 710 715

<210> 3057

<211> 743

<212> PRT

<213> Homo sapiens

<400> 3057

Met Leu His Phe Asn Arg Cys His His Leu Lys Lys Ile Thr Gln Lys
 1 5 10 15
 Cys Phe Ser Ser Ile His Val Lys Thr Asp Lys His Ala Gln Arg Phe
 20 25 30
 Leu Ser Arg Thr Phe Ala Leu Ala Glu Leu Arg Lys Ser Trp Tyr Ser
 35 40 45
 Thr His Ser Leu Val Gly Asp Lys Asn Ile Ile Leu Met Gly Pro Pro
 50 55 60
 Gly Ala Gly Lys Thr Thr Val Gly Arg Ile Ile Gly Gln Lys Leu Gly
 65 70 75 80
 Cys Cys Val Ile Asp Val Asp Asp Asp Ile Leu Glu Lys Thr Trp Asn
 85 90 95
 Met Ser Val Ser Glu Lys Leu Gln Asp Val Gly Asn Glu Gln Phe Leu
 100 105 110
 Glu Glu Glu Gly Lys Ala Val Leu Asn Phe Ser Ala Ser Gly Ser Val
 115 120 125
 Ile Ser Leu Thr Gly Ser Asn Pro Met His Asp Ala Ser Met Trp His
 130 135 140
 Leu Lys Lys Asn Gly Ile Ile Val Tyr Leu Asp Val Pro Leu Leu Asp
 145 150 155 160
 Leu Ile Cys Arg Leu Lys Leu Met Lys Thr Asp Arg Ile Val Gly Gln
 165 170 175
 Asn Ser Gly Thr Ser Met Lys Asp Leu Leu Lys Phe Arg Arg Gln Tyr
 180 185 190
 Tyr Lys Lys Trp Tyr Asp Ala Arg Val Phe Cys Glu Ser Gly Ala Ser

| | | |
|---|-----|-----|
| 195 | 200 | 205 |
| Pro Glu Glu Val Ala Asp Lys Val Leu Asn Ala Ile Lys Arg Tyr Gln | | |
| 210 | 215 | 220 |
| Asp Val Asp Ser Glu Thr Phe Ile Ser Thr Arg His Val Trp Pro Glu | | |
| 225 | 230 | 235 |
| 240 | | |
| Asp Cys Glu Gln Lys Val Ser Ala Lys Phe Phe Ser Glu Ala Val Ile | | |
| 245 | 250 | 255 |
| Glu Gly Leu Ala Ser Asp Gly Gly Leu Phe Val Pro Ala Lys Glu Phe | | |
| 260 | 265 | 270 |
| Pro Lys Leu Ser Cys Gly Glu Trp Lys Ser Leu Val Gly Ala Thr Tyr | | |
| 275 | 280 | 285 |
| Val Glu Arg Ala Gln Ile Leu Leu Glu Arg Cys Ile His Pro Ala Asp | | |
| 290 | 295 | 300 |
| Ile Pro Ala Ala Arg Leu Gly Glu Met Ile Glu Thr Ala Tyr Gly Glu | | |
| 305 | 310 | 315 |
| 320 | | |
| Asn Phe Ala Cys Ser Lys Ile Ala Pro Val Arg His Leu Ser Gly Asn | | |
| 325 | 330 | 335 |
| Gln Phe Ile Leu Glu Leu Phe His Gly Pro Thr Gly Ser Phe Lys Asp | | |
| 340 | 345 | 350 |
| Leu Ser Leu Gln Leu Met Pro His Ile Phe Ala His Cys Ile Pro Pro | | |
| 355 | 360 | 365 |
| Ser Cys Asn Tyr Met Ile Leu Val Ala Thr Ser Gly Asp Thr Gly Ser | | |
| 370 | 375 | 380 |
| Ala Val Leu Asn Gly Phe Ser Arg Leu Asn Lys Asn Asp Lys Gln Arg | | |
| 385 | 390 | 395 |
| 400 | | |
| Ile Ala Val Val Ala Phe Phe Pro Glu Asn Gly Val Ser Asp Phe Gln | | |
| 405 | 410 | 415 |
| Lys Ala Gln Ile Ile Gly Ser Gln Arg Glu Asn Gly Trp Ala Val Gly | | |
| 420 | 425 | 430 |
| Val Glu Ser Asp Phe Asp Phe Cys Gln Thr Ala Ile Lys Arg Ile Phe | | |
| 435 | 440 | 445 |
| Asn Asp Ser Asp Phe Thr Gly Phe Leu Thr Val Glu Tyr Gly Thr Ile | | |
| 450 | 455 | 460 |
| Leu Ser Ser Ala Asn Ser Ile Asn Trp Gly Arg Leu Leu Pro Gln Val | | |
| 465 | 470 | 475 |
| 480 | | |
| Val Tyr His Ala Ser Ala Tyr Leu Asp Leu Val Ser Gln Gly Phe Ile | | |

| | | |
|---|-----|-----|
| 485 | 490 | 495 |
| Ser Phe Gly Ser Pro Val Asp Val Cys Ile Pro Thr Gly Asn Phe Gly | | |
| 500 | 505 | 510 |
| Asn Ile Leu Ala Ala Val Tyr Ala Lys Met Met Gly Ile Pro Ile Arg | | |
| 515 | 520 | 525 |
| Lys Phe Ile Cys Ala Ser Asn Gln Asn His Val Leu Thr Asp Phe Ile | | |
| 530 | 535 | 540 |
| Lys Thr Gly His Tyr Asp Leu Arg Glu Arg Lys Leu Ala Gln Thr Phe | | |
| 545 | 550 | 555 |
| Ser Pro Ser Ile Asp Ile Leu Lys Ser Ser Asn Leu Glu Arg His Leu | | |
| 565 | 570 | 575 |
| His Leu Met Ala Asn Lys Asp Gly Gln Leu Met Thr Glu Leu Phe Asn | | |
| 580 | 585 | 590 |
| Arg Leu Glu Ser Gln His His Phe Gln Ile Glu Lys Ala Leu Val Glu | | |
| 595 | 600 | 605 |
| Lys Leu Gln Gln Asp Phe Val Ala Asp Trp Cys Ser Glu Gly Glu Cys | | |
| 610 | 615 | 620 |
| Leu Ala Ala Ile Asn Ser Thr Tyr Asn Thr Ser Gly Tyr Ile Leu Asp | | |
| 625 | 630 | 635 |
| Pro His Thr Ala Val Ala Lys Val Val Ala Asp Arg Val Gln Asp Lys | | |
| 645 | 650 | 655 |
| Thr Cys Pro Val Ile Ile Ser Ser Thr Ala His Tyr Ser Lys Phe Ala | | |
| 660 | 665 | 670 |
| Pro Ala Ile Met Gln Ala Leu Lys Ile Lys Glu Ile Asn Glu Thr Ser | | |
| 675 | 680 | 685 |
| Ser Ser Gln Leu Tyr Leu Leu Gly Ser Tyr Asn Ala Leu Pro Pro Leu | | |
| 690 | 695 | 700 |
| His Glu Ala Leu Leu Glu Arg Thr Lys Gln Gln Glu Lys Met Glu Tyr | | |
| 705 | 710 | 715 |
| Gln Val Cys Ala Ala Asp Met Asn Val Leu Lys Ser His Val Glu Gln | | |
| 725 | 730 | 735 |
| Leu Val Gln Asn Gln Phe Ile | | |
| 740 | | |

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3058

Met Pro Gly Val Phe Ala Lys Arg Pro Ala Arg Val Gly Asp Gly Lys
 1 5 10 15
 Arg Glu Gly Lys Lys Ser Arg Arg Arg Cys Gly Gln Lys Gly Arg Arg
 20 25 30
 Glu Arg Ala Gln His Pro Phe Gln Gly Phe Phe Leu Glu Leu Ala Pro
 35 40 45
 Thr Ser Lys Arg Gly Glu Ala Ser Leu Ala Pro Leu Trp Gln His Ser
 50 55 60
 Asp Ala Ile Leu Leu Gln Leu Arg Val Arg Thr Ile Ser Pro His Ala
 65 70 75 80
 Arg His Val Gln Asp Tyr Thr Glu Thr Ser Trp Pro Gly His Gly Pro
 85 90 95
 Asn Pro Arg Phe Phe Ile Leu Tyr Glu Gly Arg Ser Phe His Ser Glu
 100 105 110
 Thr Thr Asn Leu Gln Asn
 115

<210> 3059

<211> 275

<212> PRT

<213> Homo sapiens

<400> 3059

Met Pro Leu Val Glu Pro Pro Glu Gly Pro Pro Val Leu Ser Leu Gln
 1 5 10 15
 Gln Leu Glu Ala Trp Asp Leu Asp Asp Ile Leu Gln Ser Leu Ala Gly
 20 25 30
 Gln Glu Asp Asn Gln Gly Asn Arg Ala Pro Gly Thr Val Trp Trp Ala
 35 40 45
 Ala Asp His Arg Gln Val Gln Asp Cys Met Val Pro Ser Ala His Asn

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Arg Leu Met Glu Gln Leu Ala Leu Leu Cys Thr Thr Gln Ser Lys Ala | | |
| 65 | 70 | 75 |
| Ser Ala Cys Ala Arg Lys Val Pro Ala Asp Thr Pro Gln Asp Thr Lys | | |
| | 85 | 90 |
| | | 95 |
| Glu Ala Asp Ser Gly Ser Arg Cys Ala Ser Arg Lys Arg Gly Ser Gln | | |
| | 100 | 105 |
| | | 110 |
| Ala Gly Pro Gly Pro Gln Leu Ala Gln Gly Met Arg Leu Asn Ala Glu | | |
| | 115 | 120 |
| | | 125 |
| Ser Pro Thr Ile Phe Ile Asp Leu Arg Gln Met Glu Leu Pro Asp His | | |
| | 130 | 135 |
| | | 140 |
| Leu Ser Pro Glu Ser Ser Ser His Ser Ser Ser Asp Ser Glu Glu Glu | | |
| 145 | 150 | 155 |
| | | 160 |
| Glu Glu Glu Glu Met Ala Ala Leu Gly Asp Ala Glu Gly Ala Ser Pro | | |
| | 165 | 170 |
| | | 175 |
| Ser Ser Leu Gly Leu Arg Thr Cys Thr Gly Lys Ser Gln Leu Leu Gln | | |
| | 180 | 185 |
| | | 190 |
| Gln Leu Arg Ala Phe Gln Lys Gly Thr Ala Gln Pro Glu Leu Pro Ala | | |
| | 195 | 200 |
| | | 205 |
| Ser Lys Gly Pro Ala Gly Gly Arg Ala Gln Ala Leu Glu Asp Thr Ala | | |
| | 210 | 215 |
| | | 220 |
| Gly Ser Arg Thr Gly Arg Lys Gln His Met Lys Leu Cys Ala Lys Gly | | |
| 225 | 230 | 235 |
| | | 240 |
| Gln Ser Ala Gln Ala Arg Leu Pro Arg Gly Arg Pro Arg Ala Leu Gly | | |
| | 245 | 250 |
| | | 255 |
| Asp Val Pro Glu Pro Gly Ala Ala Arg Glu Ala Leu Met Pro Pro Leu | | |
| | 260 | 265 |
| | | 270 |
| Glu Gln Leu | | |
| 275 | | |

<210> 3060

<211> 213

<212> PRT

<213> Homo sapiens

<400> 3060

Met Val Pro Glu Glu Glu Pro Gln Asp Arg Glu Lys Gly Leu Trp Trp
 1 5 10 15
 Phe Gln Leu Lys Val Trp Ser Met Ala Val Val Ser Ile Leu Leu Leu
 20 25 30
 Ser Val Cys Phe Thr Val Ser Ser Val Val Pro His Asn Phe Met Tyr
 35 40 45
 Gly Lys Thr Val Lys Arg Leu Ser Lys Leu Arg Glu Tyr Gln Gln Tyr
 50 55 60
 His Pro Ser Leu Thr Cys Val Met Glu Gly Lys Asp Ile Glu Asp Trp
 65 70 75 80
 Ser Cys Cys Pro Thr Pro Trp Thr Ser Phe Gln Ser Ser Cys Tyr Phe
 85 90 95
 Ile Ser Thr Gly Met Gln Ser Trp Thr Lys Ser Gln Lys Asn Cys Ser
 100 105 110
 Val Met Gly Ala Asp Leu Val Val Ile Asn Thr Arg Glu Glu Gln Asp
 115 120 125
 Phe Ile Ile Gln Asn Leu Lys Arg Asn Ser Ser Tyr Phe Leu Gly Leu
 130 135 140
 Ser Asp Pro Gly Gly Arg Arg His Trp Gln Trp Val Asp Gln Thr Pro
 145 150 155 160
 Tyr Asn Glu Asn Val Thr Phe Trp His Ser Gly Glu Pro Asn Asn Leu
 165 170 175
 Asp Glu Arg Cys Ala Ile Thr Asn Phe Arg Ser Ser Glu Glu Trp Gly
 180 185 190
 Trp Asn Asp Ile His Cys His Val Pro Gln Lys Ser Ile Cys Lys Met
 195 200 205
 Lys Lys Ile Tyr Ile
 210

<210> 3061

<211> 190

<212> PRT

<213> Homo sapiens

<400> 3061

Met Ile Ser Phe Ser Gly Leu Glu Arg Met Leu Lys Thr Tyr Ser Ser
 1 5 10 15
 Thr Ser Ser Phe Ser Asp Ala Lys Ser Gln Lys Asp Thr Ala Ala Leu
 20 25 30
 Met Asp Glu Asn Asn Leu Lys Leu Asp Leu Leu Glu Ala Asn Ser Tyr
 35 40 45
 Lys Leu Ser Ser Met Leu Ala Glu Leu Glu Gln Arg Pro Gln Pro Ser
 50 55 60
 His Pro Cys Ser Asn Ser Ile Phe Arg Trp Arg Glu Lys Glu His Thr
 65 70 75 80
 His Ser Tyr Val Lys Ile Ser Arg Pro Phe Leu Met Lys Arg Leu Glu
 85 90 95
 Asn Ile Val Ser Lys Ala Ser Ser Gly Gly Gln Ser Asn Pro Gly Ser
 100 105 110
 Ser Thr Pro Ala Pro Gly Ala Ala Gln Leu Ser Ser Arg Leu Cys Lys
 115 120 125
 Ala Leu Tyr Ser Phe Gln Ala Arg Gln Asp Gly Glu Leu Asn Leu Glu
 130 135 140
 Lys Gly Asp Ile Val Ile Ile His Glu Lys Lys Glu Glu Gly Trp Trp
 145 150 155 160
 Phe Gly Ser Leu Asn Gly Lys Lys Gly His Phe Ser Ala Ala Tyr Val
 165 170 175
 Glu Glu Leu Pro Ser Asn Ala Gly Asn Thr Ala Thr Lys Ala
 180 185 190

<210> 3062

<211> 574

<212> PRT

<213> Homo sapiens

<400> 3062

Met Val Ala Arg Gly Glu Ile Ala Arg Phe Trp Ser Leu Glu Ser Leu
 1 5 10 15
 His Leu Val Ser Ser Asp Gly Gly Thr Glu Pro Ser Ala Leu Val Asp

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Asp Asn Gly Ser Glu Glu Asp Phe Ser Tyr Glu Asp Leu Cys Gln Ala | | |
| 35 | 40 | 45 |
| Ser Pro Arg Tyr Leu Gln Pro Gly Gly Glu Gln Leu Ala Ile Asn Glu | | |
| 50 | 55 | 60 |
| Leu Ile Ser Asp Gly Asn Val Val Cys Ala Glu Ala Leu Trp Asp His | | |
| 65 | 70 | 75 |
| Val Thr Met Asp Asp Gln Glu Leu Gly Phe Lys Ala Gly Asp Val Ile | | |
| 85 | 90 | 95 |
| Gln Val Leu Glu Ala Ser Asn Lys Asp Trp Trp Trp Gly Arg Ser Glu | | |
| 100 | 105 | 110 |
| Asp Lys Glu Ala Trp Phe Pro Ala Ser Phe Val Arg Leu Arg Val Asn | | |
| 115 | 120 | 125 |
| Gln Glu Glu Leu Ser Glu Asn Ser Ser Ser Thr Pro Ser Glu Glu Gln | | |
| 130 | 135 | 140 |
| Asp Glu Glu Ala Ser Gln Ser Arg His Arg His Cys Glu Asn Lys Gln | | |
| 145 | 150 | 155 |
| Gln Met Arg Thr Asn Val Ile Arg Glu Ile Met Asp Thr Glu Arg Val | | |
| 165 | 170 | 175 |
| Tyr Ile Lys His Leu Arg Asp Ile Cys Glu Gly Tyr Ile Arg Gln Cys | | |
| 180 | 185 | 190 |
| Arg Lys His Thr Gly Met Phe Thr Val Ala Gln Leu Ala Thr Ile Phe | | |
| 195 | 200 | 205 |
| Gly Asn Ile Glu Asp Ile Tyr Lys Phe Gln Arg Lys Phe Leu Lys Asp | | |
| 210 | 215 | 220 |
| Leu Glu Lys Gln Tyr Asn Lys Glu Glu Pro His Leu Ser Glu Ile Gly | | |
| 225 | 230 | 235 |
| Ser Cys Phe Leu Gln Asn Gln Glu Gly Phe Ala Ile Tyr Ser Glu Tyr | | |
| 245 | 250 | 255 |
| Cys Asn Asn His Pro Gly Ala Cys Leu Glu Leu Ala Asn Leu Met Lys | | |
| 260 | 265 | 270 |
| Gln Gly Lys Tyr Arg His Phe Phe Glu Ala Cys Arg Leu Leu Gln Gln | | |
| 275 | 280 | 285 |
| Met Ile Asp Ile Ala Ile Asp Gly Phe Leu Leu Thr Pro Val Gln Lys | | |
| 290 | 295 | 300 |
| Ile Cys Lys Tyr Pro Leu Gln Leu Ala Glu Leu Leu Lys Tyr Thr Thr | | |

| | | | |
|---|-----|-----|-----|
| 305 | 310 | 315 | 320 |
| Gln Glu His Gly Asp Tyr Ser Asn Ile Lys Ala Ala Tyr Glu Ala Met | | | |
| | 325 | 330 | 335 |
| Lys Asn Val Ala Cys Leu Ile Asn Glu Arg Lys Arg Lys Leu Glu Ser | | | |
| | 340 | 345 | 350 |
| Ile Asp Lys Ile Ala Arg Trp Gln Val Ser Ile Val Gly Trp Glu Gly | | | |
| | 355 | 360 | 365 |
| Leu Asp Ile Leu Asp Arg Ser Ser Glu Leu Ile His Ser Gly Glu Leu | | | |
| | 370 | 375 | 380 |
| Thr Lys Ile Thr Lys Gln Gly Lys Ser Gln Gln Arg Thr Phe Phe Leu | | | |
| 385 | 390 | 395 | 400 |
| Phe Asp His Gln Leu Val Ser Cys Lys Lys Asp Leu Leu Arg Arg Asp | | | |
| | 405 | 410 | 415 |
| Met Leu Tyr Tyr Lys Gly Arg Leu Asp Met Asp Glu Met Glu Leu Val | | | |
| | 420 | 425 | 430 |
| Asp Leu Gly Asp Gly Arg Asp Lys Asp Cys Asn Leu Ser Val Lys Asn | | | |
| | 435 | 440 | 445 |
| Ala Phe Lys Leu Val Ser Arg Thr Thr Asp Glu Val Tyr Leu Phe Cys | | | |
| | 450 | 455 | 460 |
| Ala Lys Lys Gln Glu Asp Lys Ala Arg Trp Leu Gln Ala Cys Ala Asp | | | |
| 465 | 470 | 475 | 480 |
| Glu Arg Arg Arg Val Gln Glu Asp Lys Glu Met Gly Met Glu Ile Ser | | | |
| | 485 | 490 | 495 |
| Glu Asn Gln Lys Lys Leu Ala Met Leu Asn Ala Gln Lys Ala Gly His | | | |
| | 500 | 505 | 510 |
| Gly Lys Ser Lys Gly Tyr Asn Arg Cys Pro Val Ala Pro Pro His Gln | | | |
| | 515 | 520 | 525 |
| Gly Leu His Pro Ile His Gln Arg His Ile Thr Met Pro Thr Ser Val | | | |
| | 530 | 535 | 540 |
| Pro Gln Gln Gln Val Phe Gly Leu Ala Glu Pro Lys Arg Lys Ser Ser | | | |
| 545 | 550 | 555 | 560 |
| Leu Phe Trp His Thr Phe Asn Arg Leu Thr Pro Phe Arg Lys | | | |
| | 565 | 570 | |

<211> 703

<212> PRT

<213> Homo sapiens

<400> 3063

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Met Met Ala His Cys Arg Ile Asp Leu Leu Gly Ser Ser Asp Pro Pro
  1             5             10             15
Thr Ser Ala Ser Gln Ile Ala Glu Thr Thr Asp Val Ser His His Ala
      20             25             30
Gly Leu Ile Glu Phe Leu Ala Leu Ser Asn Ser Ser Ala Leu Ala Ser
      35             40             45
Arg Ser Val Glu Ile Thr Glu Ile Lys Leu Pro Val Glu Val Asp Ile
      50             55             60
Gly Leu Thr Gln Ala Glu Gly Pro Asp Glu Thr Lys Asn Thr Glu Pro
      65             70             75             80
Gln Met Gly Leu Val Ile Glu Pro Pro Gln Cys Gln Phe Ala Gln Gln
      85             90             95
His Glu Gln Arg Lys Glu Ala Gly Asn Ile Glu Ser Gly Val Glu Pro
      100            105            110
Pro Asp Arg Ile Arg Pro Ile Tyr Ser Gly Lys Phe Phe Asp Arg Thr
      115            120            125
Pro Cys Trp Pro Ser Ala Gly Lys Val Ile Pro Val Gly Tyr Arg Val
      130            135            140
Ala Ser Cys Leu Thr Glu Lys Leu Pro Arg Leu Ile Thr Pro Pro Glu
      145            150            155            160
Ala Lys Lys Tyr Phe Asn Phe Arg Tyr Pro Pro Ala Gly Val Glu Arg
      165            170            175
Val Phe Tyr Gly Arg Ala Asn Asp Pro Gln Ile Ala Pro Tyr Leu Thr
      180            185            190
His Gly Ile Arg Ser Lys Ile Ser Val Leu Ala Asn Thr Leu Ile Asn
      195            200            205
Pro Gln Pro Ile Thr Thr Phe Gln Gln Lys Ile Lys Asp Lys Lys Glu
      210            215            220
Ser Ile Tyr Leu Ser Asn Arg Arg Ala Pro Leu Gly Lys Ser His Asp
      225            230            235            240
Gln Ala Pro Gly Leu Pro Lys Gly Met Asp Thr Thr Asn Thr Thr Phe

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| | | |
|---|-----|-----|
| 245 | 250 | 255 |
| Gly Thr Ala Val Ile Lys Glu Tyr Ser Ala Lys Asp Val Val Asn Pro | | |
| 260 | 265 | 270 |
| Pro Lys Ser Tyr Glu Glu Val Phe Lys Glu Gly Asn Glu Gly His Asp | | |
| 275 | 280 | 285 |
| Leu Tyr Val Val Ser His Asn Asp Tyr Tyr Ala Gly Glu Ala Lys Asn | | |
| 290 | 295 | 300 |
| Arg Lys Tyr Asn Pro Ser Ser Phe His Arg Cys Ser Val Tyr Gly Val | | |
| 305 | 310 | 315 |
| Pro Thr Pro His Phe Asn Asp Gly Arg Ala Met Ala Lys Ser Leu Tyr | | |
| 325 | 330 | 335 |
| Trp Leu His Glu Leu Gln Met Lys Arg Gly Ala Lys Phe Val Ser Lys | | |
| 340 | 345 | 350 |
| Arg Ala Asp Asp Phe Lys Glu Lys Phe Gln His Lys Leu Gly Arg Val | | |
| 355 | 360 | 365 |
| Leu Asp Pro Ile Ala Glu Thr Met Asn Val Pro Pro Asp Cys Thr Phe | | |
| 370 | 375 | 380 |
| Gly Ala Cys Leu Arg Pro Glu Glu Tyr Gly Val Gly Asp Leu Ile His | | |
| 385 | 390 | 395 |
| Asn Arg Leu Pro Asp Glu Tyr Leu Arg Gly Lys Asp Arg Gln Arg Ala | | |
| 405 | 410 | 415 |
| Leu Ile Ala Ala Val Arg His His Leu Lys Lys Val Asn Tyr Gln Lys | | |
| 420 | 425 | 430 |
| Phe Asp Thr Leu Leu Ala Ala Phe Arg His Tyr Asp Lys Lys Gly Asp | | |
| 435 | 440 | 445 |
| Gly Met Ile Asp Lys Asp Glu Leu Gln Glu Ala Cys Asp Gln Ala Asn | | |
| 450 | 455 | 460 |
| Leu Ser Leu Asp Asp Lys Leu Leu Asp Gln Leu Phe Asp Tyr Cys Asp | | |
| 465 | 470 | 475 |
| Val Asp Asn Asp Gly Phe Ile Asn Tyr Leu Glu Phe Ala Asn Phe Leu | | |
| 485 | 490 | 495 |
| Asn Cys Lys Asp Lys Met Leu Leu Lys Glu Tyr Glu Glu Arg Val Ile | | |
| 500 | 505 | 510 |
| Ile Lys Gly Arg Lys Pro Asp Cys Val Asn Pro Thr Glu Ala Asn Val | | |
| 515 | 520 | 525 |
| Glu Glu Pro Glu Gln Thr Leu Leu Ile Lys Pro Glu Asp Ile Val Leu | | |

| | | | |
|---|-----|-----|-----|
| 530 | 535 | 540 | |
| Lys Glu Ala Gly Ser Thr Glu Lys Thr Leu Trp Thr Leu Leu Arg Pro | | | |
| 545 | 550 | 555 | 560 |
| Ser Asp Lys Val Ser Asn Tyr Tyr Lys Thr Thr Ser Ser Glu Ile Asn | | | |
| | 565 | 570 | 575 |
| Ala Ile Val Gly Ala Ile Pro Ser Thr Cys Tyr Pro Ile Cys Gly Val | | | |
| | 580 | 585 | 590 |
| Pro Thr Ile Arg Ser Asp Ile Pro Ala Pro Arg Ile Arg Arg Thr Ser | | | |
| | 595 | 600 | 605 |
| Asp Arg Thr Asn Tyr Gly Glu Glu Gly Ser Ala Tyr Ser Leu Leu Tyr | | | |
| 610 | 615 | 620 | |
| Pro Thr Ile Phe Ala Arg Lys Gly Val Phe Glu Arg Asp Phe Phe Lys | | | |
| 625 | 630 | 635 | 640 |
| Thr Arg Ser Lys Glu Glu Ile Ala Glu Ile Leu Cys Asn Ile Gly Val | | | |
| | 645 | 650 | 655 |
| Lys Leu Ser Asp Glu Glu Phe Glu Asn Val Trp Asn Leu Ala Ser Lys | | | |
| | 660 | 665 | 670 |
| Lys His His Arg Gly Glu Val Cys Val Glu Asn Ile Arg Asn Val Leu | | | |
| | 675 | 680 | 685 |
| Asp Glu Leu Arg His Ala Asp Arg Ile Lys Cys Lys Thr Leu Met | | | |
| 690 | 695 | 700 | |

<210> 3064

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3064

| | | | |
|---|----|----|----|
| Met Met Met Glu Arg Asp Val Phe Ile Leu Phe Tyr Phe Phe Arg Gln | | | |
| 1 | 5 | 10 | 15 |
| Ser Leu Ala Leu Ser Pro Ser Leu Glu Cys Asn Gly Thr Ile Ser Ala | | | |
| | 20 | 25 | 30 |
| His Cys Asn Leu Arg Leu Pro Gly Ser Ser Asn Ser Pro Ala Ser Ala | | | |
| | 35 | 40 | 45 |
| Ser His Val Ala Gly Ile Thr Gly Thr His His His Ala Arg Leu Ile | | | |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Phe Leu Phe Leu Val Glu Met Gly Phe His His Val Gly Gln Ala Gly | | |
| 65 | 70 | 75 |
| Leu Glu Leu Leu Thr Ser Gly Asp Leu Pro Ala Leu Ala Ser Gln Ser | | |
| 85 | 90 | 95 |
| Ala Gly Ile Thr Gly Val Ser His Arg Ala Arg Pro Leu Phe Tyr Phe | | |
| 100 | 105 | 110 |
| Leu Glu Met Val Leu Leu Cys His Pro Gly Trp Ser Ala Val Met Gln | | |
| 115 | 120 | 125 |
| Ser | | |

<210> 3065

<211> 274

<212> PRT

<213> Homo sapiens

<400> 3065

| | | |
|---|-----|-----|
| Met Cys Met Gly Gly Leu His Ala Gly Met Cys Val Ser Leu Cys Val | | |
| 1 | 5 | 10 |
| Cys Val Cys Ala Cys Val Cys Val His Val Gly Ile Cys Met His Ala | | |
| 20 | 25 | 30 |
| Cys Val Cys Leu Cys Met Cys Met Cys Val Cys Ala Cys Gly Asn Leu | | |
| 35 | 40 | 45 |
| His Ala Phe Leu Cys Val Phe Val Ser Val Tyr Thr Cys Met Gly Val | | |
| 50 | 55 | 60 |
| Phe Glu Cys Val His Leu Cys Val His Leu Phe Val Cys Ile Cys Val | | |
| 65 | 70 | 75 |
| Gly Ala Ser Ala Trp Ile Leu Val Cys Ile Cys Val Cys Ala His Val | | |
| 85 | 90 | 95 |
| Cys Thr Cys Val His Ser Phe Val Tyr Val Cys Gly Cys Val His Val | | |
| 100 | 105 | 110 |
| Gly Met Arg Val Tyr Leu Cys Glu His Val Arg Met Cys Val Ser Leu | | |
| 115 | 120 | 125 |

Cys Ala Cys Leu Cys Val Cys Ile His Val Arg Val Cys Ile Tyr Ala
 130 135 140
 Cys Ile Leu Val Cys Ala Leu Val Cys Met His Ile Cys Leu Glu Asp
 145 150 155 160
 Met Ala Leu Pro Gln Gly Leu Gly Thr Leu Pro Cys Leu Pro Cys Pro
 165 170 175
 Ala Leu Pro Cys Pro Glu Val Trp Gly Thr Trp Pro Cys Ser Gly Val
 180 185 190
 Trp Gly Thr Leu Pro Trp Ala Pro Ala Cys Pro Gly Pro Leu Pro Ala
 195 200 205
 Leu Ala Ala His Leu Ala Leu Gly Pro Ala Glu Trp Asn Leu Gln Pro
 210 215 220
 Leu His Gly Leu Asp His Gly Pro His Gly His Glu Asp Val Leu Val
 225 230 235 240
 Asp Gln Gly Pro Glu Ala Leu Ala Leu Leu Leu Arg Val Ala Gly Ala
 245 250 255
 Val Asp Asp Pro His Leu Leu Asp Glu Asp Glu Thr Arg Arg Thr Arg
 260 265 270
 Glu Val

<210> 3066

<211> 238

<212> PRT

<213> Homo sapiens

<400> 3066

Met Ala Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser
 1 5 10 15
 Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Leu Gln Ser Cys
 20 25 30
 Ala Thr Ala Ser Arg Leu Leu Phe Phe Phe Leu Leu Ser Ser Val Phe
 35 40 45
 Phe Tyr Pro Thr Ser Leu Pro Leu Ser Ser Leu Leu Pro Pro Phe Pro
 50 55 60

Phe Ser Ser Leu Leu Pro Pro Ser Cys Phe Ser Pro Ser Phe Pro Leu
 65 70 75 80
 Pro Ser Phe Leu Phe Leu Pro Phe Pro Val Cys Leu Pro Pro Leu Phe
 85 90 95
 Leu Ser Cys Leu Pro Val Ser Phe Ala Leu Phe Leu Pro Phe Ser Arg
 100 105 110
 Pro Ser Leu Pro Ala Phe Leu Phe Thr Ser Phe Pro Ser His Cys Phe
 115 120 125
 Leu Ala Phe Pro Ala Phe Pro Cys Leu Ser Leu Ser Phe Leu Pro Phe
 130 135 140
 Pro Ala Ser Leu Phe Pro Ala Phe Pro His Leu Ser Leu Ser Cys Leu
 145 150 155 160
 Ser Leu Ser Leu Pro Phe Phe Pro Ser Pro Pro Thr Leu Pro Pro Ser
 165 170 175
 Ser Leu Leu Phe Phe Pro Leu Leu Ser Leu Cys Leu Ser Phe Phe Phe
 180 185 190
 Pro Ser Leu Phe Leu Phe Ser Pro Cys Val Phe Leu Ala Leu Val Phe
 195 200 205
 Pro Phe Ser Pro Leu Cys Thr Glu Lys Met Thr Val Pro Gly Cys Gly
 210 215 220
 Trp Ala Gly Val Thr Arg Pro Arg Glu Arg Gly His Pro Gly
 225 230 235

<210> 3067

<211> 233

<212> PRT

<213> Homo sapiens

<400> 3067

Met Asn Glu Gly Thr Val Gly Gly Lys Pro Arg Glu Asn Phe Gly Tyr
 1 5 10 15
 Ser Asp Glu Gly Ser Gly Glu Cys Gly Glu Arg Gln Ala Arg Ala Arg
 20 25 30
 Cys Ser Arg Leu Phe Pro Val Pro Ala Ser Arg Leu Ala His Ala Ser
 35 40 45

Leu Pro Pro Glu Ile Val Gln Arg Arg Arg Asp Pro Gly Gly Ala Leu
 50 55 60
 Arg Met Pro Phe Arg Lys Leu Leu Leu Pro Arg Ala Trp Gly Leu Trp
 65 70 75 80
 Cys Ser Gly Met Gly Cys Asp Ala Gly Leu Gln Gln Gly Leu Arg Pro
 85 90 95
 Leu His Val Cys His Lys His Phe Leu Val Leu Arg Ser Arg Pro Gly
 100 105 110
 Cys Ser Leu Pro Arg Ala Val Leu Ser Gln His Pro Gln Glu Gly Arg
 115 120 125
 Pro Gln Ala Glu Lys Pro Ala Gly Ala Tyr Cys Pro Glu Trp Ala Ser
 130 135 140
 Asn Pro Pro Leu Leu Gly Phe Trp Gly Gln Gly Pro Val His Lys Pro
 145 150 155 160
 Leu Gln Val Pro Pro Ser Gly Leu Pro Ser Pro Gln Gly Trp Pro Arg
 165 170 175
 Glu Arg Leu Ser Glu Asp Cys Leu Leu His Pro Gly Gly Ser Ala Pro
 180 185 190
 Arg Ala Gly Pro Pro Gln Gly Gln Gly Val Pro Gln Ala Gly Pro Gln
 195 200 205
 Gly Leu Ser Arg Gly Thr Ala Gly Gly Ser Pro Leu Gly Arg Glu Glu
 210 215 220
 Asn Leu Ala Pro Gln Leu Ala Ala Ser
 225 230

<210> 3068

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3068

Met Leu Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr
 1 5 10 15
 Gln Cys Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys Asp Ile Ile Leu
 20 25 30

Arg Glu Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro Asn Arg Phe Lys
 35 40 45
 Leu Trp Phe Thr Leu Asp His Pro Pro Lys Gly Ile Leu Pro Ile Ser
 50 55 60
 Gly His Pro Thr Ile Pro Ser Ser Ser Lys Ser Lys Pro Cys Pro Phe
 65 70 75 80
 Val Asn Ser Gly Phe Ile Glu Ile Asn Leu Ala Ser His Cys Gln Leu
 85 90 95
 Gly Ser Leu Ser Ala Gln Thr Gln
 100

<210> 3069

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3069

Met Val Ser Asn Ser Ile Ser Tyr His Leu Pro Val Ser Leu Gln Asp
 1 5 10 15
 Pro Cys Ser Gln Ile Pro Ser Arg Ser Ile Cys Leu Cys His Ser Arg
 20 25 30
 Thr His Gly Leu Lys Phe Cys Phe Leu Pro Ser Ala Cys Ala Ile Ala
 35 40 45
 Gly Pro Met Val Thr Asn Ser Ile Ser Tyr His Leu Pro Val Ser Leu
 50 55 60
 Gln Asp Pro Cys Ser Gln Ile Pro Ser Arg Ser Ile Cys Leu Cys His
 65 70 75 80
 Ser Arg Thr His Gly His Lys Phe His Leu Leu Pro Ser Ala Cys Ala
 85 90 95
 Ile Ala Gly Pro Met Val Thr Asn Ser Ile Ser Tyr His Leu Pro Val
 100 105 110
 Ser Leu Gln Asp Pro Cys Ser Gln Ile Pro Ser Arg Thr Ile Cys Leu
 115 120 125
 Cys His Ser Arg Thr His Gly His Lys Phe His Leu Leu Pro Ser Ala

130 135 140
 Cys Val Ile Ala Gly Ser Met Val Thr Asn Ser Ile Ser Tyr His Leu
 145 150 155 160
 Pro Val Pro

<210> 3070

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3070

Met Asn Ser Cys Gln Glu His Cys Leu His Lys Gly Arg Ser Leu Pro
 1 5 10 15
 Asp Leu Arg Thr Gln Gln Asn Phe Tyr Phe Val Lys Asn Leu Ile Phe
 20 25 30
 Ser Leu His His Ser Phe Gln Val Asn Ile Gln Gln Ser Ala Phe Gln
 35 40 45
 Phe Arg Glu Met Phe Thr Val Val Trp Phe Ser Leu Phe Leu Gly Thr
 50 55 60
 Arg Leu Pro His Leu Glu His Ile Thr Ser Ala Lys Leu Ser Ile Pro
 65 70 75 80
 Lys Gln Tyr Arg Phe Leu Leu Leu Ser Arg Ser Ser Ser Gly Cys Gly
 85 90 95
 Arg Gln Thr Phe Gln Asn Cys Leu Pro Ser Phe Pro Pro Pro Glu Met
 100 105 110
 His Ala Phe Val
 115

<210> 3071

<211> 282

<212> PRT

<213> Homo sapiens

<400> 3071

Met Gly Arg Arg Leu His Ser Ala His Asp Pro Gly Leu Ser Lys Thr
 1 5 10 15
 Ser Thr Ala Glu Met Glu His Gly Leu His Glu Ala Arg Thr Val Arg
 20 25 30
 Thr Ser Gln Asp Ser Ser Asn Val Arg Lys Pro Leu Glu Thr Gly His
 35 40 45
 Arg Cys Ser Ser Ser Ser Ser Leu Pro Val Ile His Asp Pro Ser Val
 50 55 60
 Phe Leu Leu Gly Pro Gln Leu Tyr Leu Pro Gln Pro Gln Phe Leu Ser
 65 70 75 80
 Pro Asp Val Leu Met Pro Thr Met Ala Gly Glu Pro Asn Arg Leu Pro
 85 90 95
 Gly Thr Ser Arg Ser Val Gln Gln Phe Leu Ala Met Cys Asp Arg Gly
 100 105 110
 Glu Thr Ser Gln Gly Ala Lys Tyr Thr Gly Arg Thr Leu Asn Tyr Gln
 115 120 125
 Ser Leu Pro His Arg Ser Arg Thr Asp Asn Ser Trp Ala Pro Trp Ser
 130 135 140
 Glu Thr Asn Gln His Ile Gly Thr Arg Phe Leu Thr Thr Pro Gly Cys
 145 150 155 160
 Asn Pro Gln Leu Thr Tyr Thr Ala Thr Leu Pro Glu Arg Ser Lys Gly
 165 170 175
 Leu Gln Val Pro His Thr Gln Ser Trp Ser Asp Leu Phe His Ser Pro
 180 185 190
 Ser His Pro Pro Ile Val His Pro Val Tyr Pro Pro Ser Ser Ser Leu
 195 200 205
 His Val Pro Leu Arg Ser Ala Trp Asn Ser Asp Pro Val Pro Gly Ser
 210 215 220
 Arg Thr Pro Gly Pro Arg Arg Val Asp Met Pro Pro Asp Asp Asp Trp
 225 230 235 240
 Arg Gln Ser Ser Tyr Ala Ser His Ser Gly His Arg Arg Thr Val Gly
 245 250 255
 Glu Gly Phe Leu Phe Val Leu Ser Asp Ala Pro Arg Arg Glu Gln Ile
 260 265 270
 Arg Ala Arg Val Leu Gln His Ser Gln Trp

275

280

<210> 3072

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3072

Met Asp Gly Leu Pro Ser His Arg Pro Val Ile Glu Leu Cys Ile Pro

1

5

10

15

Ser Ser Leu Asp Pro Thr Leu Ala Pro Pro Gly Cys His Val Val Ser

20

25

30

Leu Phe Thr Gln Tyr Thr Pro Tyr Thr Leu Ala Gly Gly Lys Ala Trp

35

40

45

Asp Glu Gln Glu Arg Asp Ala Tyr Ala Asp Arg Val Phe Asp Cys Ile

50

55

60

Glu Val Tyr Ala Pro Gly Phe Lys Asp Ser Val Val Gly Arg Asp Ile

65

70

75

80

Leu Thr Pro Pro Asp Leu Glu Arg Ile Phe Gly Leu Pro Gly Gly Lys

85

90

95

Ile Ser Trp Lys Glu Lys Asn Ile Cys

100

105

<210> 3073

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3073

Met Lys Arg Pro Ser Pro Gly Leu Pro Leu Ser Pro Phe Pro Ser Pro

1

5

10

15

Leu His Ser Trp Ser Thr Ser Trp Lys Asn Thr Ser Trp Gly Ala Ala

20

25

30

Phe Pro Ser Lys Arg Trp Gly Leu His Ser Gln Pro Ala Ile Arg Lys

35 40 45
 Leu Asn Arg Ser Ser Pro Arg Ser Arg Val Ser Thr Gly Arg Ala Arg
 50 55 60
 Val Asp Gln Leu Cys Ser Ser Gly Thr Asn Pro Pro Tyr Met Pro Gly
 65 70 75 80
 Leu Glu Ala Phe Gly Phe Val Asp Ala Lys Ser Gly Trp Ser Arg Leu
 85 90 95
 Leu His Pro Asp Ser Pro Ala Ser Pro Phe
 100 105

<210> 3074

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3074

Met Ser Ser Arg Glu Leu Lys Arg Arg Phe Glu Val Phe Gly Glu Ile
 1 5 10 15
 Glu Glu Cys Glu Val Leu Thr Arg Asn Arg Arg Gly Glu Lys Tyr Gly
 20 25 30
 Phe Ile Thr Tyr Arg Cys Ser Glu His Ala Ala Leu Ser Leu Thr Lys
 35 40 45
 Gly Ala Ala Leu Arg Lys Arg Asn Glu Pro Ser Phe Gln Leu Ser Tyr
 50 55 60
 Gly Gly Leu Arg His Phe Cys Trp Pro Arg Tyr Thr Asp Tyr Gly Lys
 65 70 75 80
 Pro Leu Lys Pro Ser His Ser Leu Val Arg Leu Lys Ala Trp Glu Ala
 85 90 95
 Val Pro Ser Leu Asn Lys Thr Gln Ser
 100 105

<210> 3075

<211> 187

<212> PRT

<213> Homo sapiens

<400> 3075

```

Met Ala Tyr Glu Val Tyr Tyr Gly Leu Thr Glu Glu Glu Gly Ala Val
  1             5             10             15
Pro Ala Glu His Gln Val Ala Met Ala Ala Ala Arg Ala Leu Gly Asp
      20             25             30
Val Thr Val Leu Gly Ser Leu Leu Leu Gln His Leu Leu His Phe Ser
      35             40             45
Thr Pro Gly Leu Val Leu Arg Ser Leu Gly Ala Leu Thr Gly Pro Gln
      50             55             60
Leu Leu Ser Leu Ala Gln Ser Pro Ala Gly Ser His Val Leu Asp Ala
      65             70             75             80
Ile Leu Thr Ser Pro Ser Val Thr Arg Lys Leu Arg Arg Arg Val Leu
      85             90             95
Gln Asn Leu Lys Gly Gln Tyr Val Ala Leu Ala Cys Ser Arg His Gly
      100            105            110
Ser Arg Val Leu Asp Ala Ile Trp Ser Gly Ala Ala Leu Arg Ala Arg
      115            120            125
Lys Glu Ile Ala Ala Glu Leu Gly Glu Gln Asn Gln Glu Leu Ile Arg
      130            135            140
Asp Pro Phe Gly His His Val Ala Arg Asn Val Ala Leu Thr Thr Phe
      145            150            155            160
Leu Lys Arg Arg Glu Ala Trp Glu Gln Gln Gln Gly Ala Val Ala Lys
      165            170            175
Arg Arg Arg Ala Leu Asn Ser Ile Leu Glu Asp
      180            185

```

<210> 3076

<211> 565

<212> PRT

<213> Homo sapiens

<400> 3076

```

Met Asp Val Val Phe Leu Ile Asp Asn Ser Arg Asn Ile Ala Lys Asp

```

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Glu Phe Lys Ala Val Lys Ala Leu Val Ser Ser Val Ile Asp Asn Phe | | | |
| 20 | 25 | 30 | |
| Asn Ile Ala Ser Asp Pro Leu Ile Ser Asp Ser Gly Asp Arg Ile Ala | | | |
| 35 | 40 | 45 | |
| Leu Leu Ser Tyr Ser Pro Trp Glu Ser Ser Arg Arg Lys Met Gly Thr | | | |
| 50 | 55 | 60 | |
| Val Lys Thr Glu Phe Asp Phe Ile Thr Tyr Asp Asn Gln Leu Leu Met | | | |
| 65 | 70 | 75 | 80 |
| Lys Asn His Ile Gln Thr Ser Phe Gln Gln Leu Asn Gly Glu Ala Thr | | | |
| 85 | 90 | 95 | |
| Ile Gly Arg Ala Leu Leu Trp Thr Thr Glu Asn Leu Phe Pro Glu Thr | | | |
| 100 | 105 | 110 | |
| Pro Tyr Leu Arg Lys His Lys Val Ile Phe Val Val Ser Ala Gly Glu | | | |
| 115 | 120 | 125 | |
| Asn Tyr Glu Arg Lys Glu Phe Val Lys Met Met Ala Leu Arg Ala Lys | | | |
| 130 | 135 | 140 | |
| Cys Gln Gly Tyr Val Ile Phe Val Ile Ser Leu Gly Ser Thr Arg Lys | | | |
| 145 | 150 | 155 | 160 |
| Asp Asp Met Glu Glu Leu Ala Ser Tyr Pro Leu Asp Gln His Leu Ile | | | |
| 165 | 170 | 175 | |
| Gln Leu Gly Arg Ile His Lys Pro Asp Leu Asn Tyr Ile Ala Lys Phe | | | |
| 180 | 185 | 190 | |
| Leu Lys Pro Phe Leu Tyr Ser Val Arg Arg Gly Phe Asn Gln Tyr Pro | | | |
| 195 | 200 | 205 | |
| Pro Pro Met Leu Glu Asp Ala Cys Arg Leu Ile Asn Leu Gly Gly Glu | | | |
| 210 | 215 | 220 | |
| Asn Ile Arg Asn Asp Gly Phe Gln Phe Val Thr Glu Leu Gln Glu Asp | | | |
| 225 | 230 | 235 | 240 |
| Phe Leu Gly Asp Asn Gly Phe Ile Gly Gln Glu Leu Asn Ser Gly Arg | | | |
| 245 | 250 | 255 | |
| Glu Ser Pro Phe Val Lys Thr Glu Asp Asn Gly Ser Asp Tyr Leu Val | | | |
| 260 | 265 | 270 | |
| Tyr Leu Pro Ser Gln Met Phe Glu Pro Gln Lys Leu Met Ile Asn Tyr | | | |
| 275 | 280 | 285 | |
| Glu Lys Asp Gln Lys Ser Ala Glu Ile Ala Ser Leu Thr Ser Gly His | | | |

| | | | |
|---|-----|-----|-----|
| 290 | 295 | 300 | |
| Glu Asn Tyr Gly Arg Lys Glu Glu Pro Asp His Thr Tyr Glu Pro Gly | | | |
| 305 | 310 | 315 | 320 |
| Asp Val Ser Leu Gln Glu Tyr Tyr Met Asp Val Ala Phe Leu Ile Asp | | | |
| | 325 | 330 | 335 |
| Ala Ser Gln Arg Val Gly Ser Asp Glu Phe Lys Glu Val Lys Ala Phe | | | |
| | 340 | 345 | 350 |
| Ile Thr Ser Val Leu Asp Tyr Phe His Ile Ala Pro Thr Pro Leu Thr | | | |
| | 355 | 360 | 365 |
| Ser Thr Leu Gly Asp Arg Val Ala Val Leu Ser Tyr Ser Pro Pro Gly | | | |
| | 370 | 375 | 380 |
| Tyr Met Pro Asn Thr Glu Glu Cys Pro Val Tyr Leu Glu Phe Asp Leu | | | |
| 385 | 390 | 395 | 400 |
| Val Thr Tyr Asn Ser Ile His Gln Met Lys His His Leu Gln Asp Ser | | | |
| | 405 | 410 | 415 |
| Gln Gln Leu Asn Gly Asp Val Phe Ile Gly His Ala Leu Gln Trp Thr | | | |
| | 420 | 425 | 430 |
| Ile Asp Asn Val Phe Val Gly Thr Pro Asn Leu Arg Lys Asn Lys Val | | | |
| | 435 | 440 | 445 |
| Ile Phe Val Ile Ser Ala Gly Glu Thr Asn Ser Leu Asp Lys Asp Val | | | |
| | 450 | 455 | 460 |
| Leu Arg Asn Val Ser Leu Arg Ala Lys Cys Gln Gly Tyr Ser Ile Phe | | | |
| 465 | 470 | 475 | 480 |
| Val Phe Ser Phe Gly Pro Lys His Asn Asp Lys Glu Leu Glu Glu Leu | | | |
| | 485 | 490 | 495 |
| Ala Ser His Pro Leu Asp His His Leu Val Gln Leu Gly Arg Thr His | | | |
| | 500 | 505 | 510 |
| Lys Pro Asp Trp Asn Tyr Ile Ile Lys Phe Val Lys Pro Phe Val His | | | |
| | 515 | 520 | 525 |
| Leu Ile Arg Arg Ala Ile Asn Lys Tyr Pro Thr Glu Asp Met Lys Ala | | | |
| | 530 | 535 | 540 |
| Thr Cys Val Asn Met Thr Ser Pro Asn Pro Glu Asn Gly Gly Thr Glu | | | |
| 545 | 550 | 555 | 560 |
| Asn Thr Val Leu Trp | | | |
| | 565 | | |

<210> 3077

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3077

```

Met Gly Gln Cys Val Thr Lys Cys Lys Asn Pro Ser Ser Thr Leu Gly
  1             5             10             15
Ser Lys Asn Gly Asp Arg Glu Pro Ser Asn Lys Ser His Ser Arg Arg
      20             25             30
Gly Ala Gly His Arg Glu Glu Gln Val Pro Pro Cys Gly Lys Pro Gly
      35             40             45
Gly Asp Ile Leu Val Asn Gly Thr Lys Lys Ala Glu Ala Ala Thr Glu
      50             55             60
Ala Cys Gln Leu Pro Thr Ser Ser Gly Asp Ala Gly Arg Glu Ser Lys
      65             70             75             80
Ser Asn Ala Glu Glu Ser Ser Leu Gln Arg Leu Glu Glu Leu Phe Arg
      85             90             95
Arg Tyr Lys Asp Glu Arg Glu Asp Ala Ile Leu Glu Glu Gly Met Glu
      100            105            110
Arg Phe Cys Asn Asp Leu Cys Val Asp Pro Thr Glu Phe Arg Val Leu
      115            120            125
Leu Leu Ala Trp Lys Phe Gln Ala Ala Thr Met Cys Lys Phe Thr Arg
      130            135            140
Lys Glu Phe Phe Asp Gly Cys Lys Ala Ile Ser Ala Asp Ser Ile Asp
      145            150            155            160
Gly Ile Cys Ala Arg Phe Pro Ser Leu Leu Thr Glu Ala Lys Gln Glu
      165            170            175
Asp Lys Phe Lys Asp Leu Tyr Arg Phe Thr Phe Gln Phe Gly Leu Asp
      180            185            190
Ser Glu Glu Gly Gln Arg Ser Leu His Arg Glu Ile Ala Ile Ala Leu
      195            200            205
Trp Lys Leu Val Phe Thr Gln Asn Asn Pro Pro Val Leu Asp Gln Trp
      210            215            220
Leu Asn Phe Leu Thr Glu Asn Pro Ser Gly Ile Lys Gly Ile Ser Arg

```

225 230 235 240
 Asp Thr Trp Asn Met Phe Leu Asn Phe Thr Gln Val Ile Gly Pro Asp
 245 250 255
 Leu Ser Asn Tyr Ser Glu Asp Glu Ala Trp Pro Ser Leu Phe Asp Thr
 260 265 270
 Phe Val Glu Trp Glu Met Glu Arg Arg Lys Arg Glu Gly Glu Gly Arg
 275 280 285
 Gly Ala Leu Ser Ser Gly Pro Glu Gly Leu Cys Pro Glu Glu Gln Thr
 290 295 300

<210> 3078

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3078

Met Ser Arg Thr Thr Ala Gly Pro Thr Leu Ser Arg Glu Gln Gly Ala
 1 5 10 15
 Ala Leu Ser Cys Leu Leu Leu Glu Pro Ala Lys Asp Glu Ala Met Pro
 20 25 30
 Gln Leu Pro Leu Arg Ser Thr Gln Cys Trp Pro His Arg Pro Thr Gln
 35 40 45
 Gly Ala Glu Leu Ser Pro Gly Ala His Gly Ala Gly Gln Arg Gln Arg
 50 55 60
 Pro Leu Gly Arg Ser Ala Gln Ser Trp Val Gly Pro Ala Ser Gly Thr
 65 70 75 80
 Leu Arg Pro Pro His Pro Pro Asp Leu Leu Ser Arg Arg Asn Pro Thr
 85 90 95
 Arg Ala Ala Pro Ser Ala Pro Pro Ser Arg Asp Lys Leu Thr Ser Asp
 100 105 110
 Asn Asp Phe Ile Leu Thr Tyr Leu Ile Thr Ala Ala Pro Pro Pro Ser
 115 120 125
 Ser Leu Ser Arg Glu Gln Thr Leu Trp Pro Ala Pro Asp Ser Ala Pro
 130 135 140

Thr Pro Ser Ala Asn Leu Lys Gly Asn Lys Tyr Lys Leu Tyr Lys
 145 150 155

<210> 3079

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3079

Met Phe Pro Phe Cys Ile Ser His Thr Arg Asp Pro Lys Val Cys Leu
 1 5 10 15
 Pro His Phe Asn Trp Gly Gly Leu Asp Lys Val Glu Phe Gln Leu Gln
 20 25 30
 Glu Thr Gly Cys Asp Met Gly Glu Val Pro Lys Ala His Arg Leu Lys
 35 40 45
 Leu Arg Trp Leu Phe Pro Val Ser Leu Cys Arg Ala Pro Leu Leu Ser
 50 55 60
 Thr Ala His Leu Ala Leu Leu Leu Pro Ser Cys Leu Leu Cys Ser Ser
 65 70 75 80
 Cys Tyr Tyr Phe Pro Phe Leu Ser Leu Leu Pro Pro Trp Pro Asn Leu
 85 90 95
 Phe His Arg Asn Ile Thr Gly Pro Ala Arg His Ser Gly Ser Pro Leu
 100 105 110

<210> 3080

<211> 295

<212> PRT

<213> Homo sapiens

<400> 3080

Met Gly Glu Trp Ala Phe Leu Gly Ser Leu Leu Asp Ala Val Gln Leu
 1 5 10 15
 Gln Ser Pro Leu Val Gly Arg Leu Trp Leu Val Val Met Leu Ile Phe
 20 25 30

Arg Ile Leu Val Leu Ala Thr Val Gly Gly Ala Val Phe Glu Asp Glu
 35 40 45
 Gln Glu Glu Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Arg Gln Thr
 50 55 60
 Cys Tyr Asp Arg Ala Phe Pro Val Ser His Tyr Arg Phe Trp Leu Phe
 65 70 75 80
 His Ile Leu Leu Leu Ser Ala Pro Pro Val Leu Phe Val Val Tyr Ser
 85 90 95
 Met His Arg Ala Gly Lys Glu Ala Gly Gly Ala Glu Ala Ala Ala Gln
 100 105 110
 Cys Ala Pro Gly Leu Pro Glu Ala Gln Cys Ala Pro Cys Ala Leu Arg
 115 120 125
 Ala Arg Arg Ala Arg Arg Cys Tyr Leu Leu Ser Val Ala Leu Arg Leu
 130 135 140
 Leu Ala Glu Leu Thr Phe Leu Gly Gly Gln Ala Leu Leu Tyr Gly Phe
 145 150 155 160
 Arg Val Ala Pro His Phe Ala Cys Ala Gly Pro Pro Cys Pro His Thr
 165 170 175
 Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe Val Leu
 180 185 190
 Phe Tyr Phe Ala Val Gly Leu Leu Ser Ala Leu Leu Ser Val Ala Glu
 195 200 205
 Leu Gly His Leu Leu Trp Lys Gly Arg Pro Arg Ala Gly Glu Arg Asp
 210 215 220
 Asn Arg Cys Asn Arg Ala His Glu Glu Ala Gln Lys Leu Leu Pro Pro
 225 230 235 240
 Pro Pro Pro Pro Pro Ile Val Val Thr Trp Glu Glu Asn Arg His Leu
 245 250 255
 Gln Gly Glu Gly Ser Pro Gly Ser Pro His Pro Lys Thr Glu Leu Asp
 260 265 270
 Ala Pro Arg Phe Arg Arg Glu Ser Thr Ser Pro Ala Gly Trp His Cys
 275 280 285
 Ser Leu Pro Phe His Gly Thr
 290 295

<210> 3081

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3081

```

Met Phe Ser Ser Phe Arg Phe Leu Tyr Lys Ala Lys Met Ser Phe Pro
  1             5             10             15
Ser Ile Thr Lys Ser Ser Tyr Gly Tyr Ile Asn Pro Lys Ser Pro Leu
             20             25             30
Leu Leu Lys Gly Tyr Asp Gln Val Ile Thr Cys Thr Leu Leu Pro Pro
             35             40             45
Thr Leu Pro Ser Ser Leu Asn Lys His Val Ala Gln Trp Phe Pro Asn
             50             55             60
Leu Ala Ala His Ser Tyr Gln Ser Pro Gly Asp Phe Phe Lys Ile Leu
             65             70             75             80
Met Pro Asn Leu His Ser Thr Leu Ile Asn Met Ser Arg Ser Gly Ser
             85             90             95
Leu Thr Asp Thr Thr Ile Lys Lys Lys Lys Ile Pro Lys Met Ile Pro
             100            105            110
Ile Asp Asn Lys Val Glu Glu Pro Leu Ala His Pro Lys Leu Arg Tyr
             115            120            125
Lys Val Lys Trp Pro Phe
             130

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<210> 3082

<211> 182

<212> PRT

<213> Homo sapiens

<400> 3082

```

Met Cys Thr Trp Gly Gln Asp Leu Arg Pro Thr Ser Trp Thr Ala Ala
  1             5             10             15
Ser Thr His Gly Leu Arg Glu Lys Val Pro Cys Cys Arg Leu Trp Gly
             20             25             30

```


Thr Ser Ala Leu Thr Val Ala Met Pro Glu Lys Ala Pro Pro Asp Leu
 35 40 45
 Pro Thr Trp Pro Ala Cys Pro Val Arg Arg Ala Gly Trp Gly Trp Cys
 50 55 60
 Trp Leu Gln Met Ile Leu Lys Gly Thr Ala Arg Lys Pro Pro Gly Ala
 65 70 75 80
 Pro Pro Ala Ala Gly Ser Glu Arg Gly Thr Gly Ser Leu Ala Pro Ser
 85 90 95
 Arg Ser Val Ser Thr Arg Ala Thr Pro Val Thr Cys Arg Arg Gly Arg
 100 105 110
 Gln Thr Arg Ser Gly Pro Ala Pro Glu Gly Ala Ser Cys Arg Trp His
 115 120 125
 Lys Gly Val Ile Cys Ile Leu Val Lys Gly Glu Pro Thr Cys Leu Leu
 130 135 140
 Gln Val Gly Asn Thr Pro Trp Arg Pro Trp Cys Gly Ala Ser Thr Arg
 145 150 155 160
 Ala Ser Ser Ser Ser Ser Ala Ala Gly Pro Trp Glu Gly Thr Gly Pro
 165 170 175
 Ala Pro Val Gln Pro Gly
 180

<210> 3083

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3083

Met Glu Glu Gly Asn Pro Phe Ile Arg Leu Pro Lys Thr Ser Val Asp
 1 5 10 15
 Gly Ile Leu Ile Ile Tyr Cys Leu Ser Gln Ile Ser His His Arg Cys
 20 25 30
 Leu Pro Thr Val Ser His Leu Leu Lys Phe Leu Ser His Ser Phe Ser
 35 40 45
 Thr Val Phe Phe Pro Thr Thr Phe Leu Pro Asp His Val Ser Gly Pro
 50 55 60

Leu Met Arg Ser Lys Ser Thr Arg Gly Ser Lys Arg Ile Leu Ile Thr
 65 70 75 80

Lys Arg Ser Glu Trp Pro Lys Thr Leu Leu Leu Ser His Gly Tyr Cys
 85 90 95
 Asp Leu Thr Phe Val Leu Tyr Leu Leu Ile Pro Asp Cys
 100 105

<210> 3084

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3084

Met Arg Gly Pro Gln Trp Gly Ile Leu Val Ile Leu Glu Thr Gly Ile
 1 5 10 15
 Phe His Ser Cys Val Lys Met Gln Leu Phe Phe Cys Leu Ile Val Arg
 20 25 30
 Thr His Asn Pro Lys Leu Ile Leu His Tyr Arg Ile Leu Pro Asp Phe
 35 40 45
 Ile Ser Lys Asn Pro Trp Cys Ser Ile Ser Phe Ser Ser Leu His Pro
 50 55 60
 Ile Gln Ser Cys Gly Ile Gly Lys Cys Ser Cys His Gly Val Glu Lys
 65 70 75 80
 Pro Glu Val Cys Gln Ala Leu Glu Ala Pro Arg Ser Thr Met Pro Lys
 85 90 95
 Val Thr Asn Phe Pro Glu Val Ala Glu
 100 105

<210> 3085

<211> 784

<212> PRT

<213> Homo sapiens

<400> 3085

Met Thr Ile Val Pro Thr Thr Asp Ile Glu Pro Val Thr Val Arg Thr
 1 5 10 15
 Glu Ala Thr Val Thr Thr Leu Ala Pro Lys Thr Ser Gln Arg Thr Arg
 20 25 30
 Thr Arg Arg Pro Arg Pro Lys His Lys Thr Thr Pro Arg Pro Glu Thr
 35 40 45
 Leu Gln Thr Lys Leu Asp Phe Gly Pro Ile Thr Pro Gly Thr Ser Ser
 50 55 60
 Ala Pro Thr Thr Thr Thr Lys Arg Thr Arg Arg Pro His Pro Lys Pro
 65 70 75 80
 Lys Thr Thr Pro His Pro Glu Val Pro Gln Thr Lys Leu Ala Pro Lys
 85 90 95
 Val Pro Gln Arg Thr His Arg Pro His Pro Lys Pro Lys Thr Thr Leu
 100 105 110
 Ser Pro Glu Glu Leu Gln Thr Glu Leu Val Pro Val Thr Asp Leu Gly
 115 120 125
 Pro Val Thr Phe Arg Thr Glu Ile Pro Ala Thr Thr Leu Ala Thr Lys
 130 135 140
 Thr Ser Lys Arg Thr Arg Pro Pro Arg Pro Arg Pro Lys Thr Thr Pro
 145 150 155 160
 Ser Pro Gln Ala Pro Glu Thr Lys Pro Val Pro Ala Thr Val Leu Glu
 165 170 175
 Pro Val Thr Leu Arg Pro Glu Ala Ser Thr Thr Leu Ala Ser Lys Thr
 180 185 190
 Ser Gln Arg Thr Arg Arg Pro Arg Leu Arg Thr Lys Thr Thr Pro Arg
 195 200 205
 Pro Glu Ala Pro Glu Ser Lys Pro Ala Pro Lys Gln Thr Pro Arg Ala
 210 215 220
 Pro Pro Lys Pro Lys Thr Ser Pro Arg Pro Arg Ile Pro Gln Thr Gln
 225 230 235 240
 Pro Val Pro Lys Val Pro Gln Arg Val Thr Ala Lys Pro Lys Thr Ser
 245 250 255
 Pro Ser Pro Glu Val Ser Tyr Thr Thr Pro Ala Pro Lys Asp Val Leu
 260 265 270
 Leu Pro His Lys Pro Tyr Pro Glu Val Ser Gln Ser Glu Pro Ala Pro

| | | |
|---|-----|-----|
| 275 | 280 | 285 |
| Leu Glu Thr Arg Gly Ile Pro Phe Ile Pro Met Ile Ser Pro Ser Pro | | |
| 290 | 295 | 300 |
| Ser Gln Glu Glu Leu Gln Thr Thr Leu Glu Glu Thr Asp Gln Ser Thr | | |
| 305 | 310 | 315 |
| Gln Glu Pro Phe Thr Thr Lys Ile Pro Arg Thr Thr Glu Leu Ala Lys | | |
| 325 | 330 | 335 |
| Thr Thr Gln Ala Pro His Arg Phe Tyr Thr Thr Val Arg Pro Arg Thr | | |
| 340 | 345 | 350 |
| Ser Asp Lys Pro His Ile Arg Pro Val Leu Asn Arg Thr Thr Thr Arg | | |
| 355 | 360 | 365 |
| Pro Thr Arg Pro Lys Pro Ser Gly Met Pro Ser Gly Asn Gly Val Gly | | |
| 370 | 375 | 380 |
| Thr Gly Val Lys Gln Ala Pro Arg Pro Ser Gly Ala Asp Arg Asn Val | | |
| 385 | 390 | 395 |
| Ser Val Asp Ser Thr His Pro Thr Lys Lys Pro Gly Thr Arg Arg Pro | | |
| 405 | 410 | 415 |
| Pro Leu Pro Pro Arg Pro Thr His Pro Arg Arg Lys Pro Leu Pro Pro | | |
| 420 | 425 | 430 |
| Asn Asn Val Thr Gly Lys Pro Gly Ser Ala Gly Ile Ile Ser Ser Gly | | |
| 435 | 440 | 445 |
| Pro Ile Thr Thr Pro Pro Leu Arg Ser Thr Pro Arg Pro Thr Gly Thr | | |
| 450 | 455 | 460 |
| Pro Leu Glu Arg Ile Glu Thr Asp Ile Lys Gln Pro Thr Val Pro Ala | | |
| 465 | 470 | 475 |
| Ser Gly Glu Glu Leu Glu Asn Ile Thr Asp Phe Ser Ser Ser Pro Thr | | |
| 485 | 490 | 495 |
| Arg Glu Thr Asp Pro Leu Gly Lys Pro Arg Phe Lys Gly Pro His Val | | |
| 500 | 505 | 510 |
| Arg Tyr Ile Gln Lys Pro Asp Asn Ser Pro Cys Ser Ile Thr Asp Ser | | |
| 515 | 520 | 525 |
| Val Lys Arg Phe Pro Lys Glu Glu Ala Thr Glu Gly Asn Ala Thr Ser | | |
| 530 | 535 | 540 |
| Pro Pro Gln Asn Pro Pro Thr Asn Leu Thr Val Val Thr Val Glu Gly | | |
| 545 | 550 | 555 |
| Cys Pro Ser Phe Val Ile Leu Asp Trp Glu Lys Pro Leu Asn Asp Thr | | |

| | | |
|---|-----|-----|
| 565 | 570 | 575 |
| Val Thr Glu Tyr Glu Val Ile Ser Arg Glu Asn Gly Ser Phe Ser Gly | | |
| 580 | 585 | 590 |
| Lys Asn Lys Ser Ile Gln Met Thr Asn Gln Thr Phe Ser Thr Val Glu | | |
| 595 | 600 | 605 |
| Asn Leu Lys Pro Asn Thr Ser Tyr Glu Phe Gln Val Lys Pro Lys Asn | | |
| 610 | 615 | 620 |
| Pro Leu Gly Glu Gly Pro Val Ser Asn Thr Val Ala Phe Ser Thr Glu | | |
| 625 | 630 | 635 |
| Ser Ala Asp Pro Arg Val Ser Glu Pro Val Ser Ala Gly Arg Asp Ala | | |
| 645 | 650 | 655 |
| Ile Trp Thr Glu Arg Pro Phe Asn Ser Asp Ser Tyr Ser Glu Cys Lys | | |
| 660 | 665 | 670 |
| Gly Lys Gln Tyr Val Lys Arg Thr Trp Tyr Lys Lys Phe Val Gly Val | | |
| 675 | 680 | 685 |
| Gln Leu Cys Asn Ser Leu Arg Tyr Lys Ile Tyr Leu Ser Asp Ser Leu | | |
| 690 | 695 | 700 |
| Thr Gly Lys Phe Tyr Asn Ile Gly Asp Gln Arg Gly His Gly Glu Asp | | |
| 705 | 710 | 715 |
| His Cys Gln Phe Val Asp Ser Phe Leu Asp Gly Arg Thr Gly Gln Gln | | |
| 725 | 730 | 735 |
| Leu Thr Ser Asp Gln Leu Pro Ile Lys Glu Gly Tyr Phe Arg Ala Val | | |
| 740 | 745 | 750 |
| Arg Gln Glu Pro Val Gln Phe Gly Glu Ile Gly Gly His Thr Gln Ile | | |
| 755 | 760 | 765 |
| Asn Tyr Val Gln Trp Tyr Glu Cys Gly Thr Thr Ile Pro Gly Lys Trp | | |
| 770 | 775 | 780 |

<210> 3086

<211> 391

<212> PRT

<213> Homo sapiens

<400> 3086

Met Ala Gly Val Gly Ala Gly Pro Leu Arg Ala Met Gly Arg Gln Ala

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Leu Leu Leu Ala Leu Cys Ala Thr Gly Ala Gln Gly Leu Tyr Phe | | | |
| 20 | 25 | 30 | |
| His Ile Gly Glu Thr Glu Lys Arg Cys Phe Ile Glu Glu Ile Pro Asp | | | |
| 35 | 40 | 45 | |
| Glu Thr Met Met Trp Asp Lys Gln Lys Glu Val Phe Leu Pro Ser Thr | | | |
| 50 | 55 | 60 | |
| Pro Gly Leu Gly Met His Val Glu Val Lys Asp Pro Asp Gly Lys Val | | | |
| 65 | 70 | 75 | 80 |
| Val Leu Ser Arg Gln Tyr Gly Ser Glu Gly Arg Phe Thr Phe Thr Ser | | | |
| 85 | 90 | 95 | |
| His Thr Pro Gly Asp His Gln Ile Cys Leu His Ser Asn Ser Thr Arg | | | |
| 100 | 105 | 110 | |
| Met Ala Leu Phe Ala Gly Gly Lys Leu Arg Val His Leu Asp Ile Gln | | | |
| 115 | 120 | 125 | |
| Val Gly Glu His Ala Asn Asn Tyr Pro Glu Ile Ala Ala Lys Asp Lys | | | |
| 130 | 135 | 140 | |
| Leu Thr Glu Leu Gln Leu Arg Ala Arg Gln Leu Leu Asp Gln Val Glu | | | |
| 145 | 150 | 155 | 160 |
| Gln Ile Gln Lys Glu Gln Asp Tyr Gln Arg Lys Lys Val His Cys Leu | | | |
| 165 | 170 | 175 | |
| Asn Met Asp Ser Leu Ser Phe Gln Leu Gly Leu Tyr Leu Ser Pro His | | | |
| 180 | 185 | 190 | |
| Phe Leu Gln Ala Ser Asn Thr Ile Glu Pro Gly Gln Gln Ser Phe Val | | | |
| 195 | 200 | 205 | |
| Gln Val Arg Val Ser Pro Ser Val Ser Glu Phe Leu Leu Gln Leu Asp | | | |
| 210 | 215 | 220 | |
| Ser Cys His Leu Asp Leu Gly Pro Glu Gly Gly Thr Val Glu Leu Ile | | | |
| 225 | 230 | 235 | 240 |
| Gln Gly Arg Ala Ala Lys Gly Asn Cys Val Ser Leu Leu Ser Pro Ser | | | |
| 245 | 250 | 255 | |
| Pro Glu Gly Asp Pro Arg Phe Ser Phe Leu Leu His Phe Tyr Thr Val | | | |
| 260 | 265 | 270 | |
| Pro Ile Pro Lys Thr Gly Thr Leu Ser Cys Thr Val Ala Leu Arg Pro | | | |
| 275 | 280 | 285 | |

Lys Thr Gly Ser Gln Asp Gln Glu Val His Arg Thr Val Phe Met Arg
 290 295 300
 Leu Asn Ile Ile Ser Pro Asp Leu Ser Gly Cys Thr Ser Lys Gly Leu
 305 310 315 320
 Val Leu Pro Ala Val Leu Gly Ile Thr Phe Gly Ala Phe Leu Ile Gly
 325 330 335
 Ala Leu Leu Thr Ala Ala Leu Trp Tyr Ile Tyr Ser His Thr Arg Ser
 340 345 350
 Pro Ser Lys Arg Glu Pro Val Val Ala Val Ala Ala Pro Ala Ser Ser
 355 360 365
 Glu Ser Ser Ser Thr Asn His Ser Ile Gly Ser Thr Gln Ser Thr Pro
 370 375 380
 Cys Ser Thr Ser Ser Met Ala
 385 390

<210> 3087

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3087

Met Arg Lys Arg Glu Asn Leu Gly Asn Gly Ser Thr Glu Arg Ile Ile
 1 5 10 15
 Arg Val Leu Ala Arg His Met Asn Ala Gln Arg Thr Leu Glu Lys Pro
 20 25 30
 Glu Arg Val Pro Gly Gln His Pro Ala Pro Val Ser His Cys Pro Thr
 35 40 45
 Pro Gly Pro Pro Ser Pro Ala Pro Arg Gly His Arg Gly Phe Leu Ala
 50 55 60
 Leu Leu Ile Ile Ser Ile Phe Met Met Arg Leu Val Asn Lys Thr Arg
 65 70 75 80
 Glu Leu Ala Lys His Leu Tyr Leu Ser Arg Ala Arg Ser Ala Glu Gln
 85 90 95
 Arg Ser Val Gly Gly Leu Gly Gly Ala Asn
 100 105

<210> 3088

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3088

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Met Leu Glu Ile Lys Met Glu Glu Ala Met Thr Tyr Thr Glu Asp Ser
 1             5             10             15
Tyr Gly Met Asp Gly Lys Val Asn Gln Pro Arg Leu Thr Ala Asp Ile
      20             25             30
Asn Trp Gln Gly Leu Glu Glu Leu His Ser Val Asn Glu Asn Ile Tyr
      35             40             45
Glu Tyr Arg Gln Asn Tyr Arg Leu Ser Leu Val Asp Trp Thr Asn Tyr
      50             55             60
Leu Lys Asp Leu Asp Arg Val Phe Ala Leu Leu Lys Ser His Tyr Glu
      65             70             75             80
Gln Asn Lys Thr Asn Lys Thr Gln Thr Ala Gln Ser Asp Gly Phe Leu
      85             90             95
Val Val Ser Ala Glu His Ala Val Ser Met Glu Met Ala Ser Ala Asp
      100            105            110
Ser Asp Glu Asp Pro Arg His Lys Val Gly Lys Thr Pro His Leu Thr
      115            120            125
Leu Pro Ala Asp Leu Gln Thr Leu His Leu Asn Arg Pro Thr Leu Ser
      130            135            140
Pro Glu Ser Lys Leu Glu Trp Asn Asn Asp Ile Pro Glu Val Asn His
      145            150            155            160
Leu Asn Ser Glu His Trp Arg Lys Thr Glu Lys Trp Thr Gly His Glu
      165            170            175
Glu Thr Asn His Leu Glu Thr Asp Phe Ser Gly Asp Gly Met Thr Glu
      180            185            190
Leu Glu Leu Gly Pro Ser Pro Arg Leu Gln Pro Ile His Arg His Pro
      195            200            205
Lys Glu Leu Pro Gln Tyr Gly Gly Pro Gly Lys Asp Ile Phe Glu Asp
      210            215            220

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Gln Leu Tyr Leu Pro Val His Ser Asp Gly Ile Ser Val His Gln Met
 225 230 235 240
 Phe Thr Met Ala Thr Ala Glu His Arg Ser Asn Ser Ser Ile Ala Gly
 245 250 255
 Lys Met Leu Thr Lys Val Glu Lys Asn His Glu Lys Glu Lys Ser Gln
 260 265 270
 His Leu Glu Gly Ser Thr Ser Ser Ser Leu Ser Ser Asp
 275 280 285

<210> 3089

<211> 697

<212> PRT

<213> Homo sapiens

<400> 3089

Met Ser Glu Gly Pro Ser Ser Pro Trp Thr Gln Leu Ala Gln Pro Leu
 1 5 10 15
 Gly Pro Pro Cys Gln Asp Thr Gly Pro Thr His Tyr Pro Pro Pro His
 20 25 30
 His Pro Pro Pro His Pro Pro Gln Ala Leu Pro Cys Pro Pro Ala Cys
 35 40 45
 Arg His Pro Glu Lys Gln Gly Ser Tyr Ser Pro Ala Leu Pro Leu Gln
 50 55 60
 Pro Leu Gly Gly His Lys Gly Thr Gly Tyr Gln Ala Gly Gly Leu Gly
 65 70 75 80
 Ser Pro Tyr Leu Arg Gln Gln Ala Ala Gln Ala Pro Tyr Ile Pro Pro
 85 90 95
 Leu Gly Leu Asp Ala Tyr Pro Tyr Pro Ser Ala Pro Leu Pro Ala Pro
 100 105 110
 Ser Pro Gly Leu Lys Leu Glu Pro Pro Leu Thr Pro Arg Cys Pro Leu
 115 120 125
 Asp Phe Ala Pro Gln Thr Leu Ser Phe Pro Tyr Ala Arg Asp Asp Leu
 130 135 140
 Ser Leu Tyr Gly Ala Ser Pro Gly Leu Gly Gly Thr Pro Pro Ser Gln
 145 150 155 160

Asn Asn Val Arg Ala Val Pro Gln Pro Gly Ala Phe Gln Arg Ala Cys
 165 170 175
 Gln Pro Leu Pro Ala Ser Gln Pro Cys Ser Glu Pro Val Arg Pro Ala
 180 185 190
 Gln Glu Ala Glu Glu Lys Thr Trp Leu Pro Ser Cys Arg Lys Glu Lys
 195 200 205
 Leu Gln Pro Arg Leu Ser Glu His Ser Gly Pro Pro Ile Val Ile Arg
 210 215 220
 Asp Ser Pro Val Pro Cys Thr Pro Pro Ala Leu Pro Pro Cys Ala Arg
 225 230 235 240
 Glu Cys Gln Ser Leu Pro Gln Lys Glu Asp Ala Arg Pro Pro Ser Ser
 245 250 255
 Pro Pro Met Pro Val Ile Asp Asn Val Phe Ser Leu Ala Pro Tyr Arg
 260 265 270
 Asp Tyr Leu Asp Val Pro Ala Pro Glu Ala Thr Thr Glu Pro Asp Ser
 275 280 285
 Ala Thr Ala Glu Pro Asp Ser Ala Pro Ala Thr Ser Glu Gly Gln Asp
 290 295 300
 Lys Gly Cys Arg Gly Thr Leu Pro Ala Gln Glu Gly Pro Ser Gly Ser
 305 310 315 320
 Lys Pro Leu Arg Gly Ser Leu Lys Glu Glu Val Ala Leu Asp Leu Ser
 325 330 335
 Val Arg Lys Pro Thr Ala Glu Ala Ser Pro Val Lys Ala Ser Arg Ser
 340 345 350
 Val Glu His Ala Lys Pro Thr Ala Ala Met Asp Val Pro Asp Val Gly
 355 360 365
 Asn Met Val Ser Asp Leu Pro Gly Leu Lys Lys Ile Asp Thr Glu Ala
 370 375 380
 Pro Gly Leu Pro Gly Val Pro Val Thr Thr Asp Ala Met Pro Arg Thr
 385 390 395 400
 Asn Phe His Ser Ser Val Ala Phe Met Phe Arg Lys Phe Lys Ile Leu
 405 410 415
 Arg Pro Ala Pro Leu Pro Ala Ala Val Val Pro Ser Thr Pro Thr Ser
 420 425 430
 Ala Pro Ala Pro Thr Gln Pro Ala Pro Thr Pro Thr Ser Gly Pro Ile
 435 440 445

Gly Leu Arg Ile Leu Ala Gln Gln Pro Leu Ser Val Thr Cys Phe Ser
 450 455 460
 Leu Ala Leu Pro Ser Pro Pro Ala Val Ala Val Ala Ser Pro Ala Pro
 465 470 475 480
 Ala Pro Ala Pro Ser Pro Ala Pro Ala Arg Ala Gln Ala Pro Ala Ser
 485 490 495
 Ala Arg Asp Pro Ala Pro Ala Pro Ala Pro Val Ala Gly Pro Ala Pro
 500 505 510
 Ala Ser Thr Ser Ala Pro Gly Asp Ser Leu Glu Gln His Phe Thr Gly
 515 520 525
 Leu His Ala Ser Leu Cys Asp Ala Ile Ser Gly Ser Val Ala His Ser
 530 535 540
 Pro Pro Glu Lys Leu Arg Glu Trp Leu Glu Thr Ala Gly Pro Trp Gly
 545 550 555 560
 Gln Ala Ala Trp Gln Asp Cys Gln Gly Val Gln Gly Leu Leu Ala Lys
 565 570 575
 Leu Leu Ser Gln Leu Gln Arg Phe Asp Arg Thr His Arg Cys Pro Phe
 580 585 590
 Pro His Val Val Arg Ala Gly Ala Ile Phe Val Pro Ile His Leu Val
 595 600 605
 Lys Glu Arg Leu Phe Pro Arg Leu Pro Pro Ala Ser Val Asp His Val
 610 615 620
 Leu Gln Glu His Arg Val Glu Leu Arg Pro Thr Thr Leu Ser Glu Glu
 625 630 635 640
 Arg Ala Leu Arg Glu Leu Ala Leu Pro Gly Cys Thr Ser Arg Met Leu
 645 650 655
 Lys Leu Leu Ala Leu Arg Gln Leu Pro Asp Ile Tyr Pro Asp Leu Leu
 660 665 670
 Gly Leu Gln Trp Arg Asp Cys Val Arg Arg Gln Leu Gly Glu His Gly
 675 680 685
 Ala Ala Pro Val Ala Thr Gly Ala Val
 690 695

<210> 3090

<211> 412

<212> PRT

<213> Homo sapiens

<400> 3090

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Met Cys Lys Thr Val Ile Cys Cys Arg Val Thr Pro Leu Gln Lys Ala
  1             5             10             15
Gln Val Val Glu Leu Val Lys Lys Tyr Arg Asn Ala Val Thr Leu Ala
      20             25             30
Ile Gly Asp Gly Ala Asn Asp Val Ser Met Ile Lys Ser Ala His Ile
      35             40             45
Gly Val Gly Ile Ser Gly Gln Glu Gly Leu Gln Ala Val Leu Ala Ser
      50             55             60
Asp Tyr Ser Phe Ala Gln Phe Arg Tyr Leu Gln Arg Leu Leu Leu Val
      65             70             75             80
His Gly Arg Trp Ser Tyr Phe Arg Ile Cys Lys Phe Leu Cys Tyr Phe
      85             90             95
Phe Tyr Lys Asn Phe Ala Phe Thr Leu Val His Phe Trp Phe Gly Phe
      100            105            110
Phe Cys Gly Phe Ser Ala Gln Thr Val Tyr Asp His Trp Phe Ile Thr
      115            120            125
Leu Phe Asn Ile Val Tyr Thr Ser Leu Pro Val Leu Ala Met Gly Ile
      130            135            140
Phe Asp Gln Asp Val Ser Asp Gln Asn Ser Val Asp Cys Pro Gln Leu
      145            150            155            160
Tyr Lys Pro Gly Gln Leu Asn Leu Leu Phe Asn Lys Arg Lys Phe Phe
      165            170            175
Ile Cys Val Leu His Gly Ile Tyr Thr Ser Leu Val Leu Phe Phe Ile
      180            185            190
Pro Tyr Gly Ala Phe Tyr Asn Val Ala Gly Glu Asp Gly Gln His Ile
      195            200            205
Ala Asp Tyr Gln Ser Phe Ala Val Thr Met Ala Thr Ser Leu Val Ile
      210            215            220
Val Val Ser Val Gln Ile Ala Leu Asp Thr Ser Tyr Trp Thr Phe Ile
      225            230            235            240
Asn His Val Phe Ile Trp Gly Ser Ile Ala Ile Tyr Phe Ser Ile Leu
      245            250            255

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Phe Thr Met His Ser Asn Gly Ile Phe Gly Ile Phe Pro Asn Gln Phe
 260 265 270
 Pro Phe Val Gly Asn Ala Arg His Ser Leu Thr Gln Lys Cys Ile Trp
 275 280 285
 Leu Val Ile Leu Leu Thr Thr Val Ala Ser Val Met Pro Val Val Ala
 290 295 300
 Phe Arg Phe Leu Lys Val Asp Leu Tyr Pro Thr Leu Ser Asp Gln Ile
 305 310 315 320
 Arg Arg Trp Gln Lys Ala Gln Lys Lys Ala Arg Pro Pro Ser Ser Arg
 325 330 335
 Arg Pro Arg Thr Arg Arg Ser Ser Ser Arg Arg Ser Gly Tyr Ala Phe
 340 345 350
 Ala His Gln Glu Gly Tyr Gly Glu Leu Ile Thr Ser Gly Lys Asn Met
 355 360 365
 Arg Ala Lys Asn Pro Pro Pro Thr Ser Gly Leu Glu Lys Thr His Tyr
 370 375 380
 Asn Ser Thr Ser Trp Ile Glu Asn Leu Cys Lys Lys Thr Thr Asp Thr
 385 390 395 400
 Val Ser Ser Phe Ser Gln Asp Lys Thr Val Lys Leu
 405 410

<210> 3091

<211> 655

<212> PRT

<213> Homo sapiens

<400> 3091

Met Thr Glu Ser Leu Pro Val Ser Asp Val Leu Glu Ser Val Thr Leu
 1 5 10 15
 Ser Thr Glu Ser Pro Lys Glu Thr Ile Ala Pro Ala Lys Thr Asp Tyr
 20 25 30
 Val Tyr Pro Thr Ala Lys Ala Pro Leu Trp Pro Glu Glu Pro Lys Thr
 35 40 45
 Glu Val Val Glu Ser Ile Thr Tyr Val Ser Glu Pro Pro Glu Thr Thr
 50 55 60

Leu Glu Thr Ser Pro Leu Pro Ser Gln Ser Ile Thr Leu Pro Ser Pro
 65 70 75 80
 Asp Glu Pro Gln Thr Glu Pro Ala Pro Lys Gln Thr Pro Arg Ala Pro
 85 90 95
 Pro Lys Pro Lys Thr Ser Pro Arg Pro Arg Ile Pro Gln Thr Gln Pro
 100 105 110
 Val Pro Lys Val Pro Gln Arg Val Thr Ala Lys Pro Lys Thr Ser Pro
 115 120 125
 Ser Pro Glu Val Ser Tyr Thr Thr Pro Ala Pro Lys Asp Val Leu Leu
 130 135 140
 Pro His Lys Pro Tyr Pro Glu Val Ser Gln Ser Glu Pro Ala Pro Leu
 145 150 155 160
 Glu Thr Arg Gly Ile Pro Phe Ile Pro Met Ile Ser Pro Ser Pro Ser
 165 170 175
 Gln Glu Glu Leu Gln Thr Thr Leu Glu Glu Thr Asp Gln Ser Thr Gln
 180 185 190
 Glu Pro Phe Thr Thr Lys Ile Pro Arg Thr Thr Glu Leu Ala Lys Thr
 195 200 205
 Thr Gln Ala Pro His Arg Phe Tyr Thr Thr Val Arg Pro Arg Thr Ser
 210 215 220
 Asp Lys Pro His Ile Arg Pro Val Leu Asn Arg Thr Thr Thr Arg Pro
 225 230 235 240
 Thr Arg Pro Lys Pro Ser Gly Met Pro Ser Gly Asn Gly Val Gly Thr
 245 250 255
 Gly Val Lys Gln Ala Pro Arg Pro Ser Gly Ala Asp Arg Asn Val Ser
 260 265 270
 Val Asp Ser Thr His Pro Thr Lys Lys Pro Gly Thr Arg Arg Pro Pro
 275 280 285
 Leu Pro Pro Arg Pro Thr His Pro Arg Arg Lys Pro Leu Pro Pro Asn
 290 295 300
 Asn Val Thr Gly Lys Pro Gly Ser Ala Gly Ile Ile Ser Ser Gly Pro
 305 310 315 320
 Ile Thr Thr Pro Pro Leu Arg Ser Thr Pro Arg Pro Thr Gly Thr Pro
 325 330 335
 Leu Glu Arg Ile Glu Thr Asp Ile Lys Gln Pro Thr Val Pro Ala Ser
 340 345 350

Gly Glu Glu Leu Glu Asn Ile Thr Asp Phe Ser Ser Ser Pro Thr Arg
 355 360 365
 Glu Thr Asp Pro Leu Gly Lys Pro Arg Phe Lys Gly Pro His Val Arg
 370 375 380
 Tyr Ile Gln Lys Pro Asp Asn Ser Pro Cys Ser Ile Thr Asp Ser Val
 385 390 395 400
 Lys Arg Phe Pro Lys Glu Glu Ala Thr Glu Gly Asn Ala Thr Ser Pro
 405 410 415
 Pro Gln Asn Pro Pro Thr Asn Leu Thr Val Val Thr Val Glu Gly Cys
 420 425 430
 Pro Ser Phe Val Ile Leu Asp Trp Glu Lys Pro Leu Asn Asp Thr Val
 435 440 445
 Thr Glu Tyr Glu Val Ile Ser Arg Glu Asn Gly Ser Phe Ser Gly Lys
 450 455 460
 Asn Lys Ser Ile Gln Met Thr Asn Gln Thr Phe Ser Thr Val Glu Asn
 465 470 475 480
 Leu Lys Pro Asn Thr Ser Tyr Glu Phe Gln Val Lys Pro Lys Asn Pro
 485 490 495
 Leu Gly Glu Gly Pro Val Ser Asn Thr Val Ala Phe Ser Thr Glu Ser
 500 505 510
 Ala Asp Pro Arg Val Ser Glu Pro Val Ser Ala Gly Arg Asp Ala Ile
 515 520 525
 Trp Thr Glu Arg Pro Phe Asn Ser Asp Ser Tyr Ser Glu Cys Lys Gly
 530 535 540
 Lys Gln Tyr Val Lys Arg Thr Trp Tyr Lys Lys Phe Val Gly Val Gln
 545 550 555 560
 Leu Cys Asn Ser Leu Arg Tyr Lys Ile Tyr Leu Ser Asp Ser Leu Thr
 565 570 575
 Gly Lys Phe Tyr Asn Ile Gly Asp Gln Arg Gly His Gly Glu Asp His
 580 585 590
 Cys Gln Phe Val Asp Ser Phe Leu Asp Gly Arg Thr Gly Gln Gln Leu
 595 600 605
 Thr Ser Asp Gln Leu Pro Ile Lys Glu Gly Tyr Phe Arg Ala Val Arg
 610 615 620
 Gln Glu Pro Val Gln Phe Gly Glu Ile Gly Gly His Thr Gln Ile Asn
 625 630 635 640

Tyr Val Gln Trp Tyr Glu Cys Gly Thr Thr Ile Pro Gly Lys Trp
 645 650 655

<210> 3092

<211> 412

<212> PRT

<213> Homo sapiens

<400> 3092

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser
 1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
 20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser
 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Lys Ala Cys Val Phe Gly Asn
 50 55 60

Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro Arg Thr Glu Ala
 65 70 75 80

Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu Leu Phe Cys Ala
 85 90 95

Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val Leu Gln Glu Arg
 100 105 110

Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser Pro Gly Glu Arg
 115 120 125

Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg Val Leu Ala Leu
 130 135 140

Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln Pro Arg His Gly
 145 150 155 160

Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser Asn Val Leu Ser
 165 170 175

Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser Phe Pro Thr Gln
 180 185 190

Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met Leu Met Gly Lys

| | | |
|---|-----|-----|
| 195 | 200 | 205 |
| Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr Leu Thr Ala Thr | | |
| 210 | 215 | 220 |
| Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser Ser Gly Pro Glu | | |
| 225 | 230 | 235 |
| Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu Ile Leu Leu Ala | | |
| 245 | 250 | 255 |
| Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp Gln Asp Ala Leu | | |
| 260 | 265 | 270 |
| Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe Gly Val Asn Phe | | |
| 275 | 280 | 285 |
| Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu Gln Gly Ala Leu | | |
| 290 | 295 | 300 |
| Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu Phe Ala Ala His | | |
| 305 | 310 | 315 |
| Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln Leu Phe Ile Phe | | |
| 325 | 330 | 335 |
| Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr Ile Ile Met Thr | | |
| 340 | 345 | 350 |
| Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu Leu Tyr Gly His | | |
| 355 | 360 | 365 |
| Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val Val Phe Ala Ala | | |
| 370 | 375 | 380 |
| Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys Gln Arg Gly Lys | | |
| 385 | 390 | 395 |
| Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val | | |
| 405 | 410 | |

<210> 3093

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3093

Met Ile Val Lys Asn Val Gly Val Leu Leu Ile Met Ser Ile Ser Leu

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Ser Ile Arg Lys Phe Ile Leu Val Lys Asn Pro Val Asn Val Arg | | | |
| 20 | 25 | 30 | |
| Asn Val Gly Lys Phe Leu Val Ile Ala Ile Asn Leu Leu Cys Ile Arg | | | |
| 35 | 40 | 45 | |
| Asp Phe Ile Leu Val Arg Asn Pro Met Asn Val Lys Asn Val Gly Arg | | | |
| 50 | 55 | 60 | |
| Pro Leu Leu Phe Thr His Asn Leu Ile Asp Ile Arg Lys Phe Thr Leu | | | |
| 65 | 70 | 75 | 80 |
| Val Lys Asn Pro Ile Cys Val Arg Asn Val Ile Arg Val Phe Phe Ser | | | |
| 85 | 90 | 95 | |
| Arg Leu Glu Leu Thr Gln His Lys Arg Ile His Thr Gly Lys Lys Ser | | | |
| 100 | 105 | 110 | |
| Tyr Glu Cys Lys Glu Cys Gly Lys Val Phe Gln Leu Ile Phe Tyr Phe | | | |
| 115 | 120 | 125 | |
| Lys Glu His Glu Arg Ile His Thr Gly Lys Lys Pro Tyr Glu Cys Lys | | | |
| 130 | 135 | 140 | |
| Glu Cys Gly Lys Ala Phe Ser Val Cys Gly Gln Leu Thr Arg His Gln | | | |
| 145 | 150 | 155 | 160 |
| Lys Ile His Thr Gly Val Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys | | | |
| 165 | 170 | 175 | |
| Thr Phe Arg Leu Ser Phe Tyr Leu Thr Glu His Arg Arg Thr His Ala | | | |
| 180 | 185 | 190 | |
| Gly Lys Lys Pro Tyr Glu Cys Lys Glu Cys Gly Glu Ser Phe Asn Val | | | |
| 195 | 200 | 205 | |
| Arg Gly Gln Leu Asn Arg His Lys Thr Ile His Thr Gly Ile Lys Pro | | | |
| 210 | 215 | 220 | |
| Phe Ala Cys Lys Val Cys Glu Lys Ala Phe Ser Tyr Ser Gly Asp Leu | | | |
| 225 | 230 | 235 | 240 |
| Arg Val His Ser Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys | | | |
| 245 | 250 | 255 | |
| Glu Cys Gly Lys Ala Phe Met Leu Arg Ser Val Leu Thr Glu His Gln | | | |
| 260 | 265 | 270 | |
| Arg Leu His Thr Gly Val Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys | | | |
| 275 | 280 | 285 | |
| Thr Phe Arg Val Arg Ser Gln Ile Ser Leu His Lys Lys Ile His Thr | | | |

290 , 295 300
 Asp Val Lys Pro Tyr Lys Cys Val Arg Cys Gly Lys Thr Phe Arg Phe
 305 310 315 320
 Gly Phe Tyr Leu Thr Glu His Gln Arg Ile His Thr Gly Glu Lys Pro
 325 330 335
 Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Ile Arg Arg Gly Asn Leu
 340 345 350
 Lys Glu His Leu Lys Ile His Ser Gly Leu Lys Pro Tyr Asp Cys Lys
 355 360 365
 Glu Cys Gly Lys Ser Phe Ser Arg Arg Gly Gln Phe Thr Glu His Gln
 370 375 380
 Lys Ile His Thr Gly Val Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys
 385 390 395 400
 Ala Phe Ser Arg Ser Val Asp Leu Arg Ile His Gln Arg Ile His Thr
 405 410 415
 Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala Phe Arg Leu
 420 425 430
 Asn Ser His Leu Thr Glu His Gln Arg Ile His Thr Gly Glu Lys Pro
 435 440 445
 Tyr Glu Cys Lys Val Cys Arg Lys Ala Phe Arg Gln Tyr Ser His Leu
 450 455 460
 Tyr Gln His Gln Lys Thr His Asn Val Ile
 465 470

<210> 3094

<211> 237

<212> PRT

<213> Homo sapiens

<400> 3094

Met Glu Pro Gln Asp Phe Ser Phe Pro Gly Tyr Pro Leu Pro Ala Leu
 1 5 10 15
 Ile Pro Ser Pro Pro Pro Pro Pro Leu Gly Thr Ser Pro Pro Leu Thr
 20 25 30
 Pro Arg Ser Pro Ser His Ser Gly Glu Pro Phe Gly Leu Pro Gly Leu

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Glu Pro Glu Pro Gly Gly Pro Gln Ala Gly Glu Pro Pro Pro Pro Leu | | |
| 50 | 55 | 60 |
| Ala Gly Asp Lys Pro His Lys Cys Pro Glu Cys Gly Lys Gly Phe Arg | | |
| 65 | 70 | 75 |
| Arg Ser Ser Asp Leu Val Lys His His Arg Val His Thr Gly Glu Lys | | |
| 85 | 90 | 95 |
| Pro Tyr Leu Cys Pro Glu Cys Gly Lys Gly Phe Ala Asp Ser Ser Ala | | |
| 100 | 105 | 110 |
| Arg Val Lys His Leu Arg Thr His Arg Gly Glu Arg Ala Arg Pro Pro | | |
| 115 | 120 | 125 |
| Pro Pro Ser Thr Leu Leu Arg Pro His Asn Pro Pro Gly Pro Val Pro | | |
| 130 | 135 | 140 |
| Met Ala Pro Arg Pro Arg Val Arg Ala Gln Pro Ser Gly Pro Ser Gln | | |
| 145 | 150 | 155 |
| Pro His Val Cys Gly Phe Cys Gly Lys Glu Phe Pro Arg Ser Ser Asp | | |
| 165 | 170 | 175 |
| Leu Val Lys His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys | | |
| 180 | 185 | 190 |
| Ala Glu Cys Gly Lys Gly Phe Gly Asp Ser Ser Ala Arg Ile Lys His | | |
| 195 | 200 | 205 |
| Gln Arg Gly His Leu Val Leu Thr Pro Phe Gly Ile Gly Asp Gly Arg | | |
| 210 | 215 | 220 |
| Ala Arg Pro Leu Lys Gln Glu Ala Ala Thr Gly Leu Glu | | |
| 225 | 230 | 235 |

<210> 3095

<211> 258

<212> PRT

<213> Homo sapiens

<400> 3095

| |
|---|
| Met Pro Arg Pro Arg Arg Val Ser Gln Leu Leu Asp Leu Cys Leu Trp |
| 1 5 10 15 |
| Cys Phe Met Lys Asn Ile Ser Arg Tyr Leu Thr Asp Ile Lys Pro Leu |

| 20 | 25 | 30 |
|---|-----|-----|
| Pro Pro Asn Ile Lys Asp Arg Leu Ile Lys Ile Met Ser Met Gln Gly | | |
| 35 | 40 | 45 |
| Gln Ile Thr Asp Ser Asn Ile Ser Glu Ile Leu His Pro Glu Val Gln | | |
| 50 | 55 | 60 |
| Thr Leu Asp Leu Arg Ser Cys Asp Ile Ser Asp Ala Ala Leu Leu His | | |
| 65 | 70 | 75 |
| Leu Ser Asn Cys Arg Lys Leu Lys Lys Leu Asn Leu Asn Ala Ser Lys | | |
| 85 | 90 | 95 |
| Gly Asn Arg Val Ser Val Thr Ser Glu Gly Ile Lys Ala Val Ala Ser | | |
| 100 | 105 | 110 |
| Ser Cys Ser Tyr Leu His Glu Ala Ser Leu Lys Arg Cys Cys Asn Leu | | |
| 115 | 120 | 125 |
| Thr Asp Glu Gly Val Val Ala Leu Ala Leu Asn Cys Gln Leu Leu Lys | | |
| 130 | 135 | 140 |
| Ile Ile Asp Leu Gly Gly Cys Leu Ser Ile Thr Asp Val Ser Leu His | | |
| 145 | 150 | 155 |
| Ala Leu Gly Lys Asn Cys Pro Phe Leu Gln Cys Val Asp Phe Ser Ala | | |
| 165 | 170 | 175 |
| Thr Gln Val Ser Asp Ser Gly Val Ile Ala Leu Val Ser Gly Pro Cys | | |
| 180 | 185 | 190 |
| Ala Lys Lys Leu Glu Glu Ile His Met Gly His Cys Val Asn Leu Thr | | |
| 195 | 200 | 205 |
| Asp Gly Ala Val Glu Ala Val Leu Thr Tyr Cys Pro Gln Ile Arg Ile | | |
| 210 | 215 | 220 |
| Leu Leu Phe His Gly Cys Pro Leu Ile Thr Asp His Ser Arg Glu Val | | |
| 225 | 230 | 235 |
| Leu Glu Gln Leu Val Gly Pro Asn Lys Leu Lys Gln Val Thr Trp Thr | | |
| 245 | 250 | 255 |
| Val Tyr | | |

<210> 3096

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3096

```

Met Ser Ser Thr Trp Val Thr Asn His Ser Glu Ile Leu Asn Thr Tyr
  1          5          10          15
Pro Leu Gly Ala Gly Gly Gly Asn Asp Val Gln Tyr Leu Lys Gln Asn
      20          25          30
Leu Thr Trp Thr Glu Arg Leu Tyr Phe Pro Leu Leu His Glu Ser Leu
      35          40          45
Ile Ile Leu Gly Gly Leu Leu Cys Ile Pro Pro Phe Leu Leu Ser Pro
      50          55          60
Pro Leu Pro Phe Val Phe Ser Lys Glu Ser Glu Leu Arg Phe Pro Cys
      65          70          75          80

Ser Pro Ala Thr Leu Ile Ser Lys Thr Cys Leu Cys Val Arg Phe Phe
      85          90          95
Thr Gly Asn Met Thr Phe Cys Phe Cys Ile Gly Phe Thr Val Ile Gln
      100          105          110
Phe Ser Ser Leu Ile Ser Ser Lys Thr Lys Ser Glu Cys Thr Arg Phe
      115          120          125
Phe Arg
      130

```

<210> 3097

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3097

```

Met Gln Leu Leu Lys Ala Leu Trp Ala Leu Ala Gly Ala Ala Leu Cys
  1          5          10          15
Cys Phe Leu Val Leu Val Ile His Ala Gln Phe Leu Lys Glu Gly Gln
      20          25          30
Leu Ala Ala Gly Thr Cys Glu Ile Val Thr Leu Asp Arg Asp Ser Ser

```

```

          35              40              45
Gln Pro Arg Arg Thr Ile Ala Arg Gln Thr Ala Arg Cys Ala Cys Arg
    50              55              60
Lys Gly Gln Ile Ala Gly Thr Thr Arg Ala Arg Pro Ala Cys Val Asp
    65              70              75              80
Ala Arg Ile Ile Lys Thr Lys Gln Trp Cys Asp Met Leu Pro Cys Leu
          85              90              95
Glu Gly Glu Gly Cys Asp Leu Leu Ile Asn Arg Ser Gly Trp Thr Cys
    100              105              110
Thr Gln Pro Gly Gly Arg Ile Lys Thr Thr Thr Val Ser
    115              120              125

```

<210> 3098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 3098

```

Met Gly His Thr Leu Ser Ser Lys Cys Gly Pro Ala Pro Arg Thr Pro
  1              5              10              15
Pro Arg Gly Leu Ala Pro Val Pro Arg Leu Leu Gly Asn Pro Ser Thr
    20              25              30
Leu Arg Val Gly Glu Val Thr Pro Lys Leu Leu Leu Ser Gly Asp Phe
    35              40              45
Arg Thr Gln Arg Arg Pro Arg Ser Cys Gln Ala Phe Gln Gly Gln His
    50              55              60
Pro Pro Pro Val Arg Ser Leu Ser Ser Gly Pro Pro Arg Ala Pro Arg
    65              70              75              80
Leu Ser Pro Ala Gly Ala Ser Pro Gly Pro Gln Ser Ala Ser Ser Arg
          85              90              95
Gly Gln Arg Ala Ser Ser Pro Ala Arg Ser Gly Arg Ala Ser Arg Pro
    100              105              110
Thr Ser Pro Ala Glu Ser Thr Ala Pro Pro Arg Ser Pro Arg Thr Ser
    115              120              125
Ser Arg Val Gly Ser Gly Ser Arg Val Gly Thr Arg Gly Pro Leu Ala

```

130 135 140
 His Arg Tyr Pro His Arg Arg Arg Pro Pro Pro Pro Phe Val Ala
 145 150 155 160
 Lys His Ser Cys Ser Ser Phe Ser Cys Leu Pro Gln Lys Ala Ala Pro
 165 170 175
 Asn Leu Ala Arg Ser Trp Gly Leu Pro Gly Ser Arg Thr Ala Arg Leu
 180 185 190
 Ser Gln Gly Pro Asp Arg Gly Pro Arg Gly Val Cys Arg Leu Gly Ser
 195 200 205
 Gly Ala Ala Glu Pro Ser Gln Arg Arg Gly Lys Pro Ser Arg Gly Thr
 210 215 220
 His Arg Pro Glu Pro Arg Ala Gly Gly Arg Leu Ser Pro Ala Glu Arg
 225 230 235 240
 Ser Pro Glu Thr Glu His Ala Gln Cys Gly Arg Arg Gly Ser Leu Arg
 245 250 255
 Asn Asp

<210> 3099

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3099

Met Asp Phe Ser Glu Ser Glu Lys Phe Met Val Leu Leu Trp Lys Asn
 1 5 10 15
 Phe Ile Leu Lys Arg Arg Arg Cys Ile Ala Leu Val Val Glu Met Val
 20 25 30
 Leu Thr Phe Leu Phe Ser Ala Ala Leu Leu Ala Thr Arg Ser Val Ile
 35 40 45
 Thr Ile Asn Lys Asn Gly Pro Phe Asp Phe Ala Ala Gln Pro Val Asp
 50 55 60
 Glu Val Pro Phe Tyr Ile Thr Ala Ser Leu Ile Ser Pro Ser Pro Leu
 65 70 75 80
 Glu Leu Ala Tyr Val Pro Ser Arg Ser Thr Val Val Gln Gly Ile Ile

| | | | |
|---|-----|----|----|
| | 85 | 90 | 95 |
| Glu Arg Val Lys Met Asp Leu Asn Pro Gln Met Lys Gly | | | |
| 100 | 105 | | |

<210> 3100

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3100

| | | | |
|---|-----|-----|-----|
| Met Glu Glu Gln Pro Gln Met Gln Asp Ala Asp Glu Pro Ala Asp Ser | | | |
| 1 | 5 | 10 | 15 |
| Gly Gly Glu Gly Arg Ala Gly Gly Pro Pro Gln Val Ala Gly Ala Gln | | | |
| 20 | 25 | 30 | |
| Ala Ala Cys Ser Glu Asp Arg Met Thr Leu Leu Leu Arg Leu Arg Ala | | | |
| 35 | 40 | 45 | |
| Gln Thr Lys Gln Gln Leu Leu Glu Tyr Lys Ser Met Val Asp Ala Ser | | | |
| 50 | 55 | 60 | |
| Glu Glu Lys Thr Pro Glu Gln Ile Met Gln Glu Lys Gln Ile Glu Ala | | | |
| 65 | 70 | 75 | 80 |
| Lys Ile Glu Asp Leu Glu Asn Glu Ile Glu Glu Val Lys Val Ala Phe | | | |
| 85 | 90 | 95 | |
| Glu Ile Lys Lys Leu Ala Leu Asp Ser Val Leu Met Asp Asn Met Lys | | | |
| 100 | 105 | 110 | |
| His Leu Leu Glu Leu Asn Lys Leu Ile Met Lys Ser Gln Gln Glu Ser | | | |
| 115 | 120 | 125 | |
| Trp Asp Leu Glu Glu Lys Leu Leu Asp Ile Arg Lys Lys Arg Leu Gln | | | |
| 130 | 135 | 140 | |
| Leu Lys Gln Ala Ser Glu Ser Lys Leu Leu Glu Ile Gln Thr Glu Lys | | | |
| 145 | 150 | 155 | 160 |
| Asn Lys Gln Lys Ile Asp Leu Asp Ser Met Glu Asn Ser Glu Arg Ile | | | |
| 165 | 170 | 175 | |
| Lys Ile Ile Arg Gln Asn Leu Gln Met Glu Ile Lys Ile Thr Thr Val | | | |
| 180 | 185 | 190 | |
| Ile Gln His Val Phe Gln Asn Leu Ile Leu Gly Ser Lys Val Asn Trp | | | |

195 200 205
 Ala Glu Asp Pro Ala Leu Lys Glu Ile Val Leu Gln Leu Glu Lys Asn
 210 215 220
 Val Asp Met Met
 225

<210> 3101

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3101

Met Ile His Phe His Leu Ile Phe Leu Tyr Val Ala Arg Asn Lys Thr
 1 5 10 15
 Leu Gln Met Glu Lys Val Lys Ala Arg Leu Lys Ala Glu Phe Glu Ala
 20 25 30
 Leu Glu Ser Glu Glu Arg His Leu Lys Glu Tyr Lys Gln Glu Thr Asp
 35 40 45
 Leu Leu Leu Gln Glu Lys Met Ala His Val Glu Glu Leu Arg Leu Ile
 50 55 60
 His Ala Asp Ile Asn Val Met Glu Asn Thr Ile Lys Gln Ser Glu Asn
 65 70 75 80
 Asp Leu Asn Lys Leu Leu Glu Ser Thr Arg Arg Leu His Asp Glu Tyr
 85 90 95
 Lys Pro Leu Lys Glu His Val Asp Ala Leu Arg Met Thr Leu Gly Leu
 100 105 110
 Gln Arg Leu Pro Asp Leu Cys Glu Glu Glu Glu Lys Leu Ser Leu Asp
 115 120 125
 Tyr Phe Glu Lys Gln Lys Ala Glu Trp Gln Thr Glu Pro Gln Glu Pro
 130 135 140
 Pro Ile Pro Glu Ser Leu Ala Ala Ala Ala Ala Ala Gln Gln Leu
 145 150 155 160
 Gln Val Ala Arg Lys Gln Asp Thr Arg Gln Thr Ala Thr Phe Arg Gln
 165 170 175
 Gln Pro Pro Pro Met Lys Ala Cys Leu Ser Cys His Gln Gln Ile His

180 185 190
 Arg Asn Ala Pro Ile Cys Pro Leu Cys Lys Ala Lys Ser Arg Ser Arg
 195 200 205
 Asn Pro Lys Lys Pro Lys Arg Lys Gln Asp Glu
 210 215

<210> 3102

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3102

Met Ala Ala Ala Ala Asp Ser Phe Ser Gly Gly Pro Ala Gly Val Arg
 1 5 10 15
 Leu Pro Arg Ser Pro Pro Leu Lys Val Leu Ala Glu Gln Leu Arg Arg
 20 25 30
 Asp Ala Glu Gly Gly Pro Gly Ala Trp Arg Leu Ser Arg Ala Ala Ala
 35 40 45
 Gly Arg Gly Pro Leu Asp Leu Ala Ala Val Trp Met Gln Gly Arg Val
 50 55 60
 Val Met Ala Asp Arg Gly Glu Ala Arg Leu Arg Asp Pro Ser Gly Asp
 65 70 75 80
 Phe Ser Val Arg Gly Leu Glu Arg Val Pro Arg Gly Arg Pro Cys Leu
 85 90 95
 Val Pro Gly Lys Tyr Val Met Val Met Gly Val Val Gln Ala Cys Ser
 100 105 110
 Pro Glu Pro Cys Leu Gln Ala Val Lys Met Thr Asp Leu Ser Asp Asn
 115 120 125
 Pro Ile His Glu Ser Met Trp Glu Leu Glu Val Glu Asp Leu His Arg
 130 135 140
 Asn Ile Pro
 145

<210> 3103

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3103

```

Met Ile Asp Asp Pro Ser Lys Gly Lys Glu Ala Leu Ala Glu Ser Gly
 1             5             10             15
Gly Leu Val Gly Ala Gly Asn Gly Val Phe Phe Pro Ser Thr Glu Ala
          20             25             30
Phe Trp Asp Gly Gly Ala Val Leu Ala Ser Arg Gly Leu Glu Leu Ala
          35             40             45
Gly Ser Ser Val Pro Cys Cys Glu Arg Phe Gln Asp Phe Asp Leu Ala
          50             55             60
Gln Pro Ala Ser Leu His Pro Thr Cys Ala Thr Ala Phe Ser Gln Cys
          65             70             75             80
Asp Val Glu Cys Tyr Ser Met Ser Leu Tyr Phe Pro Leu Leu Phe Leu
          85             90             95
Val Met Gly Thr Leu Glu Pro Ser
          100

```

<210> 3104

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3104

```

Met Asp Thr Pro Leu Arg Arg Ser Arg Arg Leu Gly Gly Leu Arg Pro
 1             5             10             15
Glu Ser Pro Glu Ser Leu Thr Ser Val Ser Arg Thr Arg Arg Ala Leu
          20             25             30
Val Glu Phe Glu Ser Asn Pro Glu Glu Thr Arg Glu Pro Gly Pro Pro
          35             40             45
Pro Ser Val Gln Arg Ala Gly Leu Gly Ser Pro Glu Arg Pro Pro Lys
          50             55             60

```

Thr Ser Pro Gly Ser Pro Arg Leu Gln Gln Gly Ala Gly Leu Glu Ser
 65 70 75 80
 Pro Gln Gly Gln Pro Glu Pro Gly Ala Ala Ser Pro Gln Arg Gln Gln
 85 90 95
 Ala Pro Gly Pro Glu Pro Ser Gln Pro Leu Leu Glu Leu Thr Pro Gly
 100 105 110
 Ala Pro Gln His Gln Leu Pro Pro Val Pro Gly Ser Pro Glu Pro Tyr
 115 120 125
 Pro Gly Gln Gln Ala Thr Ser Ser Trp Gly Asp Gly Asp Arg Arg Leu
 130 135 140
 Arg Gly Lys Glu Ala Lys Arg Phe Phe Ile Pro Gly Pro Ser Val Gln
 145 150 155 160
 Glu Val Glu

<210> 3105

<211> 553

<212> PRT

<213> Homo sapiens

<400> 3105

Met Ala Phe Ser Glu Leu Leu Asp Leu Val Gly Gly Leu Gly Arg Phe
 1 5 10 15
 Gln Val Leu Gln Thr Met Ala Leu Met Val Ser Ile Met Trp Leu Cys
 20 25 30
 Thr Gln Ser Met Leu Glu Asn Phe Ser Ala Ala Val Pro Ser His Arg
 35 40 45
 Cys Trp Ala Pro Leu Leu Asp Asn Ser Thr Ala Gln Ala Ser Ile Leu
 50 55 60
 Gly Ser Leu Ser Pro Glu Ala Leu Leu Ala Ile Ser Ile Pro Pro Gly
 65 70 75 80
 Pro Asn Gln Arg Pro His Gln Cys Arg Arg Phe Arg Gln Pro Gln Trp
 85 90 95
 Gln Leu Leu Asp Pro Asn Ala Thr Ala Thr Ser Trp Ser Glu Ala Asp
 100 105 110

Thr Glu Pro Cys Val Asp Gly Trp Val Tyr Asp Arg Ser Ile Phe Thr
 115 120 125
 Ser Thr Ile Val Ala Lys Trp Asn Leu Val Cys Asp Ser His Ala Leu
 130 135 140
 Lys Pro Met Ala Gln Ser Ile Tyr Leu Ala Gly Ile Leu Val Gly Ala
 145 150 155 160
 Ala Ala Cys Gly Pro Ala Ser Asp Arg Phe Gly Arg Arg Leu Val Leu
 165 170 175
 Thr Trp Ser Tyr Leu Gln Met Ala Val Met Gly Thr Ala Ala Ala Phe
 180 185 190
 Ala Pro Ala Phe Pro Val Tyr Cys Leu Phe Arg Phe Leu Leu Ala Phe
 195 200 205
 Ala Val Ala Gly Val Met Met Asn Thr Gly Thr Leu Leu Met Glu Trp
 210 215 220
 Thr Ala Ala Arg Ala Arg Pro Leu Val Met Thr Leu Asn Ser Leu Gly
 225 230 235 240
 Phe Ser Phe Gly His Gly Leu Thr Ala Ala Val Ala Tyr Gly Val Arg
 245 250 255
 Asp Trp Thr Leu Leu Gln Leu Val Val Ser Val Pro Phe Phe Leu Cys
 260 265 270
 Phe Leu Tyr Ser Trp Trp Leu Ala Glu Ser Ala Arg Trp Leu Leu Thr
 275 280 285
 Thr Gly Arg Leu Asp Trp Gly Leu Gln Glu Leu Trp Arg Val Ala Ala
 290 295 300
 Ile Asn Gly Lys Gly Ala Val Gln Asp Thr Leu Thr Pro Glu Val Leu
 305 310 315 320
 Leu Ser Ala Met Arg Glu Glu Leu Ser Met Gly Gln Pro Pro Ala Ser
 325 330 335
 Leu Gly Thr Leu Leu Arg Met Pro Gly Leu Arg Phe Arg Thr Cys Ile
 340 345 350
 Ser Thr Leu Cys Trp Phe Ala Phe Gly Phe Thr Phe Phe Gly Leu Ala
 355 360 365
 Leu Asp Leu Gln Ala Leu Gly Ser Asn Ile Phe Leu Leu Gln Met Phe
 370 375 380
 Ile Gly Val Val Asp Ile Pro Ala Lys Met Gly Ala Leu Leu Leu Leu
 385 390 395 400

Ser His Leu Gly Arg Arg Pro Thr Leu Ala Ala Ser Leu Leu Leu Ala
 405 410 415
 Gly Leu Cys Ile Leu Ala Asn Thr Leu Val Pro His Glu Met Gly Ala
 420 425 430
 Leu Arg Ser Ala Leu Ala Val Leu Gly Leu Gly Gly Val Gly Ala Ala
 435 440 445
 Phe Thr Cys Ile Thr Ile Tyr Ser Ser Glu Leu Phe Pro Thr Val Leu
 450 455 460
 Arg Met Thr Ala Val Gly Leu Gly Gln Met Ala Ala Arg Gly Gly Ala
 465 470 475 480
 Ile Leu Gly Pro Leu Val Arg Leu Leu Gly Val His Gly Pro Trp Leu
 485 490 495
 Pro Leu Leu Val Tyr Gly Thr Val Pro Val Leu Ser Gly Leu Ala Ala
 500 505 510
 Leu Leu Leu Pro Glu Thr Gln Ser Leu Pro Leu Pro Asp Thr Ile Gln
 515 520 525
 Asn Val Gln Asn Gln Ala Val Lys Lys Ala Thr His Gly Thr Leu Gly
 530 535 540
 Asn Ser Val Leu Lys Ser Thr Gln Phe
 545 550

<210> 3106

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3106

Met Ala Ala Pro Pro Glu Pro Gly Glu Pro Glu Glu Arg Lys Ser Leu
 1 5 10 15
 Lys Leu Leu Gly Phe Leu Asp Val Glu Asn Thr Pro Cys Ala Arg His
 20 25 30
 Ser Ile Leu Tyr Gly Ser Leu Gly Ser Val Val Ala Gly Phe Gly His
 35 40 45
 Phe Leu Phe Thr Ser Arg Ile Arg Arg Ser Cys Asp Val Gly Val Gly
 50 55 60

Gly Phe Ile Leu Val Thr Leu Gly Cys Trp Phe His Cys Arg Tyr Asn
 65 70 75 80
 Tyr Ala Lys Gln Arg Ile Gln Glu Arg Ile Ala Arg Glu Glu Ile Lys
 85 90 95
 Lys Lys Ile Leu Tyr Glu Gly Thr His Leu Asp Pro Glu Arg Lys His
 100 105 110
 Asn Gly Ser Ser Ser Asn
 115

<210> 3107

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3107

Met Glu Thr Cys Leu Leu Pro Ala Pro Leu Pro Pro Ser Ala Pro Ala
 1 5 10 15
 Pro Leu Pro Arg Ser Ala Pro Ala Pro Leu Pro Arg Ser Ala Pro Ala
 20 25 30
 Pro Leu Pro Pro Ser Ala Pro Ala Pro Leu Pro Arg Ser Ala Pro Ala
 35 40 45
 Pro Leu Pro Arg Ser Ala Pro Ala Pro Leu Pro Pro Ser Ala Pro Ala
 50 55 60

Pro Leu Pro Arg Ser Ala Pro Ala Pro Leu Pro Pro Ser Ala Pro Ala
 65 70 75 80
 Pro Leu Pro Arg Ser Ala Pro Ala Pro Leu Pro Arg Ser Val Pro Ala
 85 90 95
 Pro Leu Pro Pro Ser Val Pro Ala Gln Gly Ser Ser Ser Leu Leu Leu
 100 105 110
 Thr Phe

<210> 3108

<211> 483

<212> PRT

<213> Homo sapiens

<400> 3108

```

Met Ser Val Thr Lys Ser Thr Glu Gly Pro Gln Gly Ala Val Ala Ile
  1             5             10            15
Lys Leu Asp Leu Met Ser Pro Pro Glu Ser Ala Lys Lys Leu Glu Asn
      20             25            30
Lys Asp Ser Thr Phe Leu Asp Glu Ser Pro Ser Glu Ser Ala Gly Leu
      35             40            45
Lys Lys Thr Lys Gly Ile Thr Val Phe Gln Ala Leu Ile His Leu Val
      50             55            60
Lys Gly Asn Met Gly Thr Gly Ile Leu Gly Leu Pro Leu Ala Val Lys
      65             70            75            80
Asn Ala Gly Ile Leu Met Gly Pro Leu Ser Leu Leu Val Met Gly Phe
      85             90            95
Ile Ala Cys His Cys Met His Ile Leu Val Lys Cys Ala Gln Arg Phe
      100            105            110
Cys Lys Arg Leu Asn Lys Pro Phe Met Asp Tyr Gly Asp Thr Val Met
      115            120            125
His Gly Leu Glu Ala Asn Pro Asn Ala Trp Leu Gln Asn His Ala His
      130            135            140
Trp Gly Arg His Ile Val Ser Phe Phe Leu Ile Ile Thr Gln Leu Gly
      145            150            155            160
Phe Cys Cys Val Tyr Ile Val Phe Leu Ala Asp Asn Leu Lys Gln Val
      165            170            175
Val Glu Ala Val Asn Ser Thr Thr Asn Asn Cys Tyr Ser Asn Glu Thr
      180            185            190
Val Ile Leu Thr Pro Thr Met Asp Ser Arg Leu Tyr Met Leu Ser Phe
      195            200            205
Leu Pro Phe Leu Val Leu Leu Val Leu Ile Arg Asn Leu Arg Ile Leu
      210            215            220
Thr Ile Phe Ser Met Leu Ala Asn Ile Ser Met Leu Val Ser Leu Val
      225            230            235            240
Ile Ile Ile Gln Tyr Ile Thr Gln Glu Ile Pro Asp Pro Ser Arg Leu

```

| 245 | 250 | 255 |
|---|-----------------------------|-----|
| Pro Leu Val Ala Ser Trp Lys Thr Tyr | Pro Leu Phe Phe Gly Thr Ala | |
| 260 | 265 | 270 |
| Ile Phe Ser Phe Glu Ser Ile Gly Val Val Leu Pro Leu Glu Asn Lys | | |
| 275 | 280 | 285 |
| Met Lys Asn Ala Arg His Phe Pro Ala Ile Leu Ser Leu Gly Met Ser | | |
| 290 | 295 | 300 |
| Ile Val Thr Ser Leu Tyr Ile Gly Met Ala Ala Leu Gly Tyr Leu Arg | | |
| 305 | 310 | 315 |
| Phe Gly Asp Asp Ile Lys Ala Ser Ile Ser Leu Asn Leu Pro Asn Cys | | |
| 325 | 330 | 335 |
| Trp Leu Tyr Gln Ser Val Lys Leu Leu Tyr Ile Ala Gly Ile Leu Cys | | |
| 340 | 345 | 350 |
| Thr Tyr Ala Leu Gln Phe Tyr Val Pro Ala Glu Ile Ile Ile Pro Phe | | |
| 355 | 360 | 365 |
| Ala Ile Ser Arg Val Ser Thr Arg Trp Ala Leu Pro Leu Asp Leu Ser | | |
| 370 | 375 | 380 |
| Ile Arg Leu Val Met Val Cys Leu Thr Cys Leu Leu Ala Ile Leu Ile | | |
| 385 | 390 | 395 |
| Pro Arg Leu Asp Leu Val Ile Ser Leu Met Gly Ser Val Ser Gly Thr | | |
| 405 | 410 | 415 |
| Ala Leu Ala Leu Ile Ile Pro Pro Leu Leu Glu Val Pro Thr Phe Tyr | | |
| 420 | 425 | 430 |
| Ser Glu Gly Met Ser Pro Leu Thr Ile Phe Lys Asp Ala Leu Ile Ser | | |
| 435 | 440 | 445 |
| Ile Leu Gly Phe Val Gly Phe Val Val Gly Thr Tyr Gln Ala Leu Asp | | |
| 450 | 455 | 460 |
| Glu Leu Leu Lys Ser Glu Asp Ser His Pro Phe Ser Asn Ser Thr Thr | | |
| 465 | 470 | 475 |
| Phe Val Arg | | 480 |

<210> 3109

<211> 225

<212> PRT

<213> Homo sapiens

<400> 3109

```

Met Pro Leu Ser Pro Leu Trp Ser Val Leu Phe Phe Ile Met Leu Phe
  1              5              10              15

Cys Leu Gly Leu Ser Ser Met Phe Gly Asn Met Glu Gly Val Val Val
      20              25              30
Pro Leu Gln Asp Leu Arg Val Ile Pro Pro Lys Trp Pro Lys Glu Val
      35              40              45
Leu Thr Gly Leu Ile Cys Leu Gly Thr Phe Leu Ile Gly Phe Ile Phe
      50              55              60
Thr Leu Asn Ser Gly Gln Tyr Trp Leu Ser Leu Leu Asp Ser Tyr Ala
      65              70              75              80
Gly Ser Ile Pro Leu Leu Ile Ile Ala Phe Cys Glu Met Phe Ser Val
      85              90              95
Val Tyr Val Tyr Gly Val Asp Arg Phe Asn Lys Asp Ile Glu Phe Met
      100             105             110
Ile Gly His Lys Pro Asn Ile Phe Trp Gln Val Thr Trp Arg Val Val
      115             120             125
Ser Pro Leu Leu Met Leu Ile Ile Phe Leu Phe Phe Phe Val Val Glu
      130             135             140
Val Ser Gln Glu Leu Thr Tyr Ser Ile Trp Asp Pro Gly Tyr Glu Glu
      145             150             155             160
Phe Pro Lys Ser Gln Lys Ile Ser Tyr Pro Asn Trp Val Tyr Val Val
      165             170             175
Val Val Ile Val Ala Gly Val Pro Ser Leu Thr Ile Pro Gly Tyr Ala
      180             185             190
Ile Tyr Lys Leu Ile Arg Asn His Cys Gln Lys Pro Gly Asp His Gln
      195             200             205
Gly Leu Val Ser Thr Leu Ser Thr Ala Ser Met Asn Gly Asp Leu Lys
      210             215             220
Tyr
225

```

<210> 3110

<211> 367

<212> PRT

<213> Homo sapiens

<400> 3110

Met Cys Gly Asp Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp

1

5

10

15

Val Gly Val Ala Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg

20

25

30

Arg Arg Arg Pro Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg

35

40

45

Ala Thr Ser Arg Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu

50

55

60

Glu Gln Pro Thr Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp

65

70

75

80

Leu Glu Asp Glu Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile

85

90

95

Ala Ala Pro Phe Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His

100

105

110

Val Ile Lys Gln Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe

115

120

125

Lys Ile Leu Ala Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val

130

135

140

Leu Tyr Leu Glu Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln

145

150

155

160

Gly Leu Leu Leu Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro

165

170

175

Leu Lys Thr Leu Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu

180

185

190

Tyr Thr Ile Leu Thr Val Met Leu Gln Phe Phe Val His Phe Leu Ser

195

200

205

Leu Val Tyr Leu Tyr Arg Glu Ala Gln Ala Arg Ser Pro Glu Lys Gln

210

215

220

Glu Gln Phe Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn
 225 230 235 240
 Ser Thr Val Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala
 245 250 255
 Ile Asn Tyr Lys Val Arg Pro Gly Pro Cys Pro Asn Ile His Cys Leu
 260 265 270
 Pro Thr Gln Pro His Pro Met Lys Pro Ser Val Pro His Pro His Arg
 275 280 285
 Ala Arg Pro Ser Trp Arg Ala Cys Pro Arg Thr Ser Pro Trp Cys Gly
 290 295 300
 Val Trp Gln Phe His Ser Trp Pro Ser Leu Ala Cys Ser Ser Ala Pro
 305 310 315 320
 Arg Pro Thr Ser Thr Ala Ser Leu Ala Ser Trp Thr Ser Leu Trp Ser
 325 330 335
 Ser Ser Trp Ser Leu Pro Arg Ser Cys Ser Trp Thr Ser Ala Trp Arg
 340 345 350
 Ser Trp Pro Thr Ala Ser Cys Ser Ser Ser Trp Gly Pro Arg Ser
 355 360 365

<210> 3111

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3111

Met Gln Ala Phe Ser Glu Glu Glu Arg Lys Gln Trp Leu Glu Ala Leu
 1 5 10 15
 Gly Gly Lys Glu Ala Leu Ser His Ser Phe Asn Thr Ala Ile Ile Pro
 20 25 30
 Arg Pro Glu Gly Asn Ala Gln Leu Asp Lys Met Gly Phe Thr Ile Ile
 35 40 45
 Arg Lys Cys Ile Ser Ala Val Glu Thr Arg Gly Ile Asn Asp Gln Gly
 50 55 60
 Leu Tyr Arg Val Val Gly Val Ser Ser Lys Val Gln Arg Leu Leu Ser
 65 70 75 80

Met Leu Met Asp Val Lys Thr Cys Asn Glu Val Asp Leu Glu Asn Ser
 85 90 95
 Ala Asp Trp Glu Val Lys Thr Ile Thr Ser Ala Leu Lys Gln Tyr Leu
 100 105 110
 Arg Ser Leu Pro Glu Pro Leu Met Thr Tyr Glu Leu His Gly Asp Phe
 115 120 125
 Ile Val Pro Ala Lys Ser Gly Ser Pro Glu Ser Arg Val Asn Ala Ile
 130 135 140
 His Phe Leu Val His Lys Leu Pro Glu Lys Asn Lys Glu Met Leu Asp
 145 150 155 160
 Ile Leu Val Lys His Leu Thr Asn Val Ser Asn His Ser Lys Gln Asn
 165 170 175
 Leu Met Thr Val Ala Asn Leu Gly Val Val Phe Gly Pro Thr Leu Met
 180 185 190
 Arg Pro Gln Glu Glu Thr Val Ala Ala Leu Met Asp Leu Lys Phe Gln
 195 200 205
 Asn Ile Val Val Glu Ile Leu Ile Glu Asn His Glu Lys Ile Phe Arg
 210 215 220
 Thr Pro Pro Asp Thr Thr Phe Pro Glu Pro Thr Cys Leu Ser Ala Ser
 225 230 235 240
 Pro Pro Asn Ala Pro Pro Arg Gln Ser Lys Arg Gln Gly Gln Arg Thr
 245 250 255
 Lys Arg Pro Val Ala Val Tyr Asn Leu Cys Leu Glu Leu Glu Asp Gly
 260 265 270
 Asp Asn Pro Tyr Pro Ser Lys Glu Asp Thr Pro Thr Ser Ser Leu Asp
 275 280 285
 Ser Leu Ser Ser Pro Ser Pro Val Thr Thr Ala Val Pro Gly Pro Pro
 290 295 300
 Gly Pro Asp Lys Asn His Leu Leu Ala Asp Gly Gly Ser Phe Gly Asp
 305 310 315 320
 Trp Ala Ser Thr Ile Ile Arg Ser Arg Lys Ala Arg Ala Val Tyr Pro
 325 330 335
 Cys Glu Ala Glu His Ser Ser Glu Leu Ser Phe Glu Ile Gly Ala Ile
 340 345 350
 Phe Glu Asp Val Gln Thr Ser Arg Glu Pro Gly Trp Leu Glu Gly Thr
 355 360 365

Leu Asn Gly Lys Arg Gly Leu Ile Pro Gln Asn Tyr Val Glu Leu Leu
 370 375 380

<210> 3112

<211> 815

<212> PRT

<213> Homo sapiens

<400> 3112

Met Ile Leu Gly Ala Met Leu Asn Ile Val Gln Asp Ser Ala Leu Leu
 1 5 10 15
 Glu Ala Ile Gly Cys Gln Met Glu Met Gly Gly Gly Glu Asn Asn Leu
 20 25 30
 Lys Ser Arg Ser Arg Thr Asn Ser Gly Ile Ser Ser Ala Ser Gly Gly
 35 40 45
 Ser Thr Glu Pro Thr Thr Pro Asp Ser Glu Arg Pro Ala Gln Ala Leu
 50 55 60
 Leu Arg Asp Tyr Ala Leu Asn Thr Asp Ser Ala Ala Gly Leu Leu Ile
 65 70 75 80
 Arg Ser Ile His Leu Val Thr Gln Arg Leu Asn Ser Gln Trp Arg Gln
 85 90 95
 Asp Met Ser Ile Ser Leu Ala Ala Leu Glu Leu Leu Ser Gly Leu Ala
 100 105 110
 Lys Val Lys Val Met Val Asp Ser Gly Asp Arg Lys Arg Ala Ile Ser
 115 120 125
 Ser Val Cys Thr Tyr Ile Val Tyr Gln Cys Ser Arg Pro Ala Pro Leu
 130 135 140
 His Ser Arg Asp Leu His Ser Met Ile Val Ala Ala Phe Gln Cys Leu
 145 150 155 160
 Cys Val Trp Leu Thr Glu His Pro Asp Met Leu Asp Glu Lys Asp Cys
 165 170 175
 Leu Lys Glu Val Leu Glu Ile Val Glu Leu Gly Ile Ser Gly Ser Lys
 180 185 190
 Ser Lys Asn Asn Gly Gln Glu Val Lys Tyr Lys Gly Asp Lys Glu Pro
 195 200 205

Asn Pro Ala Ser Met Arg Val Lys Asp Ala Ala Glu Ala Thr Leu Thr
 210 215 220
 Cys Ile Met Gln Leu Leu Gly Ala Phe Pro Ser Pro Ser Gly Pro Ala
 225 230 235 240
 Ser Pro Cys Ser Leu Val Asn Glu Thr Thr Leu Ile Lys Tyr Ser Arg
 245 250 255
 Leu Pro Thr Ile Asn Lys His Ser Phe Arg Tyr Phe Val Leu Asp Asn
 260 265 270
 Ser Val Ile Leu Ala Met Leu Glu Gln Pro Leu Gly Asn Glu Gln Asn
 275 280 285
 Asp Phe Phe Pro Ser Val Thr Val Leu Val Arg Gly Met Ser Gly Arg
 290 295 300
 Leu Ala Trp Ala Gln Gln Leu Cys Leu Leu Pro Arg Gly Ala Lys Ala
 305 310 315 320
 Asn Gln Lys Leu Phe Val Pro Glu Pro Arg Pro Val Pro Lys Asn Asp
 325 330 335
 Val Gly Phe Lys Tyr Ser Val Lys His Arg Pro Phe Pro Glu Glu Val
 340 345 350
 Asp Lys Ile Pro Phe Val Lys Ala Asp Leu Ser Ile Pro Asp Leu His
 355 360 365

 Glu Ile Val Thr Glu Glu Leu Glu Glu Arg His Glu Lys Leu Arg Ser
 370 375 380
 Gly Met Ala Gln Gln Ile Ala Tyr Glu Ile His Leu Glu Gln Gln Ser
 385 390 395 400
 Glu Glu Glu Leu Gln Lys Arg Ser Phe Pro Asp Pro Val Thr Asp Cys
 405 410 415
 Lys Pro Pro Pro Pro Ala Gln Glu Phe Gln Thr Ala Arg Leu Phe Leu
 420 425 430
 Ser His Phe Gly Phe Leu Ser Leu Glu Ala Leu Lys Glu Pro Ala Asn
 435 440 445
 Ser Arg Leu Pro Pro His Leu Ile Ala Leu Asp Ser Thr Ile Pro Gly
 450 455 460
 Phe Phe Asp Asp Ile Gly Tyr Leu Asp Leu Leu Pro Cys Arg Pro Phe
 465 470 475 480
 Asp Thr Val Phe Ile Phe Tyr Met Lys Pro Gly Gln Lys Thr Asn Gln

| | | |
|---|-----|-----|
| 485 | 490 | 495 |
| Glu Ile Leu Lys Asn Val Glu Ser Ser Arg Thr Val Gln Pro His Phe | | |
| 500 | 505 | 510 |
| Leu Glu Phe Leu Leu Ser Leu Gly Trp Ser Val Asp Val Gly Arg His | | |
| 515 | 520 | 525 |
| Pro Gly Trp Thr Gly His Val Ser Thr Ser Trp Ser Ile Asn Cys Cys | | |
| 530 | 535 | 540 |
| Asp Asp Gly Glu Gly Ser Gln Gln Glu Glu Val Ile Ser Ser Glu Asp | | |
| 545 | 550 | 555 |
| Ile Gly Ala Ser Ile Phe Asn Gly Gln Lys Lys Val Leu Tyr Tyr Ala | | |
| 565 | 570 | 575 |
| Asp Ala Leu Thr Glu Ile Ala Phe Val Val Pro Ser Pro Val Glu Ser | | |
| 580 | 585 | 590 |
| Leu Thr Asp Ser Leu Glu Ser Asn Ile Ser Asp Gln Asp Ser Asp Ser | | |
| 595 | 600 | 605 |
| Asn Met Asp Leu Met Pro Gly Ile Leu Lys Gln Pro Ser Leu Thr Leu | | |
| 610 | 615 | 620 |
| Glu Leu Phe Pro Asn His Thr Asp Asn Leu Asn Ser Ser Gln Arg Leu | | |
| 625 | 630 | 635 |
| Gly Pro Ser Ser Arg Met Arg Lys Leu Pro Gln Gly Arg Pro Val Pro | | |
| 645 | 650 | 655 |
| Pro Leu Gly Pro Glu Thr Arg Val Ser Val Val Trp Val Glu Arg Tyr | | |
| 660 | 665 | 670 |
| Asp Asp Ile Glu Asn Phe Pro Leu Ser Glu Leu Met Thr Glu Ile Ser | | |
| 675 | 680 | 685 |
| Thr Gly Val Glu Thr Thr Ala Asn Ser Ser Thr Ser Leu Arg Ser Thr | | |
| 690 | 695 | 700 |
| Thr Leu Glu Lys Glu Val Pro Val Ile Phe Ile His Pro Leu Asn Thr | | |
| 705 | 710 | 715 |
| Gly Leu Phe Arg Ile Lys Ile Gln Gly Ala Thr Gly Lys Phe Asn Met | | |
| 725 | 730 | 735 |
| Val Ile Pro Leu Val Asp Gly Met Ile Val Ser Arg Arg Ala Leu Gly | | |
| 740 | 745 | 750 |
| Phe Leu Val Arg Gln Thr Val Ile Asn Ile Cys Arg Arg Lys Arg Leu | | |
| 755 | 760 | 765 |
| Glu Ser Asp Ser Tyr Ser Pro Pro His Val Arg Arg Lys Gln Lys Ile | | |

770 775 780
 Thr Asp Ile Val Asn Lys Tyr Arg Asn Lys Gln Leu Glu Pro Glu Phe
 785 790 795 800
 Tyr Thr Ser Leu Phe Gln Glu Val Gly Leu Lys Asn Cys Ser Ser
 805 810 815

<210> 3113

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3113

Met Gly Thr Ser Ala Thr Pro Trp Ser Ala Phe Thr Arg Pro Gly Asn
 1 5 10 15
 Thr Ala Gln Ser Leu Arg Pro Gly Arg Pro Leu Gly Ser Arg Gly Gly
 20 25 30
 Glu Ala Val Gly Val Ala Ser Gly Arg Arg Ser Arg Glu Pro His Phe
 35 40 45
 Pro Glu Cys Arg Ala Gln Pro Arg Pro Ala Arg Pro Ala Pro Arg Gly
 50 55 60
 Arg Gly Ser Arg Gly Leu Arg Arg Glu Asp Ala Lys Arg Pro Pro Gly
 65 70 75 80
 Leu Arg Gly Ala Ala Gln Glu Ser Ala Arg Pro Pro Gly Ala Arg Ala
 85 90 95
 Gly Leu Val Arg Phe Arg
 100

<210> 3114

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3114

Met Val Ser Lys His Val Pro Trp Ser Pro Ala Ser Lys His Ser Ile

| | | | |
|---|---|-----|-----|
| 1 | 5 | 10 | 15 |
| Ala His Thr | Ala Ser Leu Ser Leu Gly Ser Ser His Thr Phe Ser Arg | | |
| | 20 | 25 | 30 |
| Val Arg Ala Val Ser Val Gly Ser Gly Glu Ala Thr Glu Thr Ala Thr | | | |
| | 35 | 40 | 45 |
| Gly Ser Leu Lys Ser Ala Arg Ala Ser Leu Gly Arg Cys Leu Glu Asn | | | |
| 50 | 55 | 60 | |
| Thr Pro Gly Asp Ile Val Ser Ser Leu Ala Ser Glu Met Leu Cys Ser | | | |
| 65 | 70 | 75 | 80 |
| Tyr Phe Arg Ser Ser Leu Lys Leu Ser Gly Met Leu Pro Ser Leu Ser | | | |
| | 85 | 90 | 95 |
| Cys Phe Ser Ser Cys Cys Gly Pro Gln Val Gln Gly Leu Thr Ser Glu | | | |
| | 100 | 105 | 110 |
| Cys | | | |

<210> 3115

<211> 157

<212> PRT

<213> Homo sapiens

<400> 3115

| | | | |
|---|----|----|----|
| Met Gln Val Gln Leu Pro His Pro His Ser Leu Gly Thr Asn Ala Gly | | | |
| 1 | 5 | 10 | 15 |
| Ala Ala Ser Pro Ser Pro Leu Phe Arg His Lys Cys Arg Cys Ser Phe | | | |
| | 20 | 25 | 30 |
| Pro Ile Pro Thr Leu Arg Ala Gln Met Gln Val Gln Leu Pro His Pro | | | |
| | 35 | 40 | 45 |
| His Ser Leu Gly Thr Asn Ala Gly Ala Ala Ser Pro Ser Pro Leu Phe | | | |
| 50 | 55 | 60 | |
| Arg His Lys Cys Arg Cys Ser Phe Pro Ile Pro Thr Leu Arg Ala Gln | | | |
| 65 | 70 | 75 | 80 |
| Met Gln Val Gln Leu Pro His Pro His Ser Leu Gly Thr Asn Ala Gly | | | |
| | 85 | 90 | 95 |
| Ala Ala Ser Pro Ser Pro Leu Leu Gly His Lys Cys Arg Cys Ser Phe | | | |

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Pro Ile Pro Thr Leu Arg Ala Gln Met Gln Val Gln Leu Pro His Pro | | |
| 115 | 120 | 125 |
| His Ser Leu Gly Thr Asn Ala Gly Ala Ala Ser Pro Ser Pro Leu Leu | | |
| 130 | 135 | 140 |
| Gly His Lys Cys Arg Cys Ser Phe Pro Ile Pro Thr Leu | | |
| 145 | 150 | 155 |

<210> 3116

<211> 525

<212> PRT

<213> Homo sapiens

<400> 3116

| | | | |
|---|-----|-----|-----|
| Met Ala Gly Leu Trp Leu Gly Leu Val Trp Gln Lys Leu Leu Leu Trp | | | |
| 1 | 5 | 10 | 15 |
| Gly Ala Ala Ser Ala Leu Ser Leu Ala Gly Ala Ser Leu Val Leu Ser | | | |
| 20 | 25 | 30 | |
| Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg | | | |
| 35 | 40 | 45 | |
| Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu | | | |
| 50 | 55 | 60 | |
| Leu Met Lys Pro Asp Gly Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr | | | |
| 65 | 70 | 75 | 80 |
| Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro | | | |
| 85 | 90 | 95 | |
| Val Pro Met Val Ala Leu Tyr Asn Ala Glu Asn Val Glu Val Ile Leu | | | |
| 100 | 105 | 110 | |
| Thr Ser Ser Lys Gln Ile Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu | | | |
| 115 | 120 | 125 | |
| Pro Trp Leu Gly Leu Gly Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg | | | |
| 130 | 135 | 140 | |
| Ser Arg Arg Lys Met Leu Thr Pro Thr Phe His Phe Thr Ile Leu Glu | | | |
| 145 | 150 | 155 | 160 |

Asp Phe Leu Asp Ile Met Asn Glu Gln Ala Asn Ile Leu Val Lys Lys
 165 170 175
 Leu Glu Lys His Ile Asn Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile
 180 185 190
 Thr Leu Cys Ala Leu Asp Ile Ile Cys Glu Thr Ala Met Gly Lys Asn
 195 200 205
 Ile Gly Ala Gln Ser Asn Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr
 210 215 220
 Arg Met Ser Glu Met Ile Phe Arg Arg Ile Lys Met Pro Trp Leu Trp
 225 230 235 240
 Leu Asp Leu Trp Tyr Leu Met Phe Lys Glu Gly Trp Glu His Lys Lys
 245 250 255
 Ser Leu Lys Ile Leu His Thr Phe Thr Asn Ser Val Ile Ala Glu Arg
 260 265 270
 Ala Asn Glu Met Asn Ala Asn Glu Asp Cys Arg Gly Asp Gly Arg Gly
 275 280 285
 Ser Ala Pro Ser Lys Asn Lys Arg Arg Ala Phe Leu Asp Leu Leu Leu
 290 295 300
 Ser Val Thr Asp Asp Glu Gly Asn Arg Leu Ser His Glu Asp Ile Arg
 305 310 315 320
 Glu Glu Val Asp Thr Phe Met Phe Glu Gly His Asp Thr Thr Ala Ala
 325 330 335
 Ala Ile Asn Trp Ser Leu Tyr Leu Leu Gly Ser Asn Pro Glu Val Gln
 340 345 350
 Lys Lys Val Asp His Glu Leu Asp Asp Val Phe Gly Lys Ser Asp Arg
 355 360 365
 Pro Ala Thr Val Glu Asp Leu Lys Lys Leu Arg Tyr Leu Glu Cys Val
 370 375 380
 Ile Lys Glu Thr Leu Arg Leu Phe Pro Ser Val Pro Leu Phe Ala Arg
 385 390 395 400
 Ser Val Ser Glu Asp Cys Glu Val Ala Gly Tyr Arg Val Leu Lys Gly
 405 410 415
 Thr Glu Ala Val Ile Ile Pro Tyr Ala Leu His Arg Asp Pro Arg Tyr
 420 425 430
 Phe Pro Asn Pro Glu Glu Phe Gln Pro Glu Arg Phe Phe Pro Glu Asn
 435 440 445

Ala Gln Gly Arg His Pro Tyr Ala Tyr Val Pro Phe Ser Ala Gly Pro
 450 455 460
 Arg Asn Cys Ile Gly Gln Lys Phe Ala Val Met Glu Glu Lys Thr Ile
 465 470 475 480
 Leu Ser Cys Ile Leu Arg His Phe Trp Ile Glu Ser Asn Gln Lys Arg
 485 490 495
 Glu Glu Leu Gly Leu Glu Gly Gln Leu Ile Leu Arg Pro Ser Asn Gly
 500 505 510
 Ile Trp Ile Lys Leu Lys Arg Arg Asn Ala Asp Glu Arg
 515 520 525

<210> 3117

<211> 172

<212> PRT

<213> Homo sapiens

<400> 3117

Met Leu Thr Glu Val Met Glu Val Trp His Gly Leu Val Ile Ala Val
 1 5 10 15
 Val Ser Leu Phe Leu Gln Ala Cys Phe Leu Thr Ala Ile Asn Tyr Leu
 20 25 30
 Leu Ser Arg His Met Ala His Lys Ser Glu Gln Ile Leu Lys Ala Ala
 35 40 45
 Ser Leu Gln Val Pro Arg Pro Ser Pro Gly His His His Pro Pro Ala
 50 55 60
 Val Lys Glu Met Lys Glu Thr Gln Thr Glu Arg Asp Ile Pro Met Ser
 65 70 75 80
 Asp Ser Leu Tyr Arg His Asp Ser Asp Thr Pro Ser Asp Ser Leu Asp
 85 90 95
 Ser Ser Cys Ser Ser Pro Pro Ala Cys Gln Ala Thr Glu Asp Val Asp
 100 105 110
 Tyr Thr Gln Val Val Phe Ser Asp Pro Gly Glu Leu Lys Asn Asp Ser
 115 120 125
 Pro Leu Asp Tyr Glu Asn Ile Lys Glu Ile Thr Asp Tyr Val Asn Val
 130 135 140

Asn Pro Glu Arg His Lys Pro Ser Phe Trp Tyr Phe Val Asn Pro Ala
 145 150 155 160
 Leu Ser Glu Pro Ala Glu Tyr Asp Gln Val Ala Met
 165 170

<210> 3118

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3118

Met Phe Ser Cys Leu Lys Lys Asn Lys His His Gln Gln Pro Phe Pro
 1 5 10 15
 Met Gly Ser Ser Ser Arg Cys Tyr His Lys Arg Asp Arg Gln Met Asp
 20 25 30
 Ile Ile Ala Lys Arg Leu Ser Asn Trp Val Pro Arg Ser Arg Gly Val
 35 40 45
 Glu Pro Leu Phe Arg Thr Val Gln Val Lys Gln Gly Ala Gly Asn Lys
 50 55 60
 Ala Gly Tyr Tyr Asn Pro Thr Asn Trp Val Pro Arg Ser Gln Gly Cys
 65 70 75 80
 Gly Ala Pro Leu Gln Asp Cys Thr Gly Glu Ala Gly Gly Trp Glu Gln
 85 90 95
 Gly Arg Leu Leu
 100

<210> 3119

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3119

Met Pro Arg Ser Ser Val Arg Phe Ser Leu Phe Pro His Val Gln Pro

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ile Val Phe Lys Glu Lys Leu Thr Met Lys Thr Gly Leu Leu Met Glu | | | |
| 20 | 25 | 30 | |
| Glu Lys Leu Glu Cys Ser Leu Trp Cys Cys Leu Ser Asp Pro Ser Ile | | | |
| 35 | 40 | 45 | |
| Pro Gly Arg Cys Cys Val Leu Glu Arg His Ile Val Pro Trp Met Gln | | | |
| 50 | 55 | 60 | |
| Gln Leu His Gln Gln Trp Lys Trp Leu Ile Cys Gly Leu Cys Arg Leu | | | |
| 65 | 70 | 75 | 80 |
| Tyr Asn Leu Pro Lys His Pro Asn Val Glu Met Pro Asp Gln Pro Leu | | | |
| 85 | 90 | 95 | |
| Pro Met Gly Gln Asn Gly Thr Thr Glu Glu Val Thr Ser Lys Glu Glu | | | |
| 100 | 105 | 110 | |
| Glu Glu Glu Glu Met Asp Glu Asp Ile Glu Asp Leu Asp His Cys Glu | | | |
| 115 | 120 | 125 | |
| Met Lys Glu Glu Pro Thr Ser Glu Lys Lys Leu Glu Asp Glu Gly Thr | | | |
| 130 | 135 | 140 | |
| Glu Lys Glu Asn Trp Ala Ile Leu Glu Lys Ile Arg Lys Thr Glu Arg | | | |
| 145 | 150 | 155 | 160 |
| Gln Gly His Leu Asn Val Leu Thr Leu Ile Val Leu Cys Thr Val Ile | | | |
| 165 | 170 | 175 | |
| Phe Arg Ser | | | |

<210> 3120

<211> 742

<212> PRT

<213> Homo sapiens

<400> 3120

| | | | |
|---|----|----|----|
| Met Glu Ser Gly Thr Ser Ser Pro Gln Pro Pro Gln Leu Asp Pro Leu | | | |
| 1 | 5 | 10 | 15 |
| Asp Ala Phe Pro Gln Lys Gly Leu Glu Pro Gly Asp Ile Ala Val Leu | | | |
| 20 | 25 | 30 | |
| Val Leu Tyr Phe Leu Phe Val Leu Ala Val Gly Leu Trp Val Gly Ser | | | |

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Pro Ser Val Ala Gln Gly Thr Arg Thr Gln Trp Trp Gln Ser Trp Leu | | |
| 50 | 55 | 60 |
| Thr Pro Ala Ser Thr Ser Trp Ala Gln Val Ile Leu Ser Pro Arg Leu | | |
| 65 | 70 | 75 |
| Pro Asp Thr Glu Glu Val Leu Ser Thr Arg Asn Arg Leu Ser Pro Asp | | |
| 85 | 90 | 95 |
| Thr Lys Pro Leu Gly Ala Leu Ile Leu Asn Phe Gln Val Ser Arg Ile | | |
| 100 | 105 | 110 |
| Ser Thr Val Lys Thr Lys Arg Asp Thr Val Lys Gly Tyr Phe Leu Ala | | |
| 115 | 120 | 125 |
| Gly Gly Asp Met Val Trp Trp Pro Val Gly Ala Ser Leu Phe Ala Ser | | |
| 130 | 135 | 140 |
| Asn Val Gly Ser Gly His Phe Ile Gly Leu Ala Gly Ser Gly Ala Ala | | |
| 145 | 150 | 155 |
| Thr Gly Ile Ser Val Ser Ala Tyr Glu Leu Asn Gly Leu Phe Ser Val | | |
| 165 | 170 | 175 |
| Leu Met Leu Ala Trp Ile Phe Leu Pro Ile Tyr Ile Ala Gly Gln Val | | |
| 180 | 185 | 190 |
| Thr Thr Met Pro Glu Tyr Leu Arg Lys Arg Phe Gly Gly Ile Arg Ile | | |
| 195 | 200 | 205 |
| Pro Ile Ile Leu Ala Val Leu Tyr Leu Phe Ile Tyr Ile Phe Thr Lys | | |
| 210 | 215 | 220 |
| Ile Ser Val Asp Met Tyr Ala Gly Ala Ile Phe Ile Gln Gln Ser Leu | | |
| 225 | 230 | 235 |
| His Leu Asp Leu Tyr Leu Ala Ile Ala Gly Leu Leu Ala Ile Thr Ala | | |
| 245 | 250 | 255 |
| Val Tyr Thr Val Ala Gly Gly Leu Ala Ala Val Ile Tyr Thr Asp Ala | | |
| 260 | 265 | 270 |
| Leu Gln Thr Leu Ile Met Leu Ile Gly Ala Leu Thr Leu Met Gly Tyr | | |
| 275 | 280 | 285 |
| Ser Phe Ala Ala Val Gly Gly Met Glu Gly Leu Lys Glu Lys Tyr Phe | | |
| 290 | 295 | 300 |
| Leu Ala Leu Ala Ser Asn Arg Ser Glu Asn Ser Ser Cys Gly Leu Pro | | |
| 305 | 310 | 315 |
| Arg Glu Asp Ala Phe His Ile Phe Arg Asp Pro Leu Thr Ser Asp Leu | | |

| | | | | | |
|---|-------------------------------------|---------------------|-----|-----|-----|
| | 325 | | 330 | | 335 |
| Pro Trp | Pro Gly Val Leu Phe Gly Met Ser Ile | Pro Ser Leu Trp Tyr | | | |
| | 340 | | 345 | | 350 |
| Trp Cys Thr Asp Gln Val Ile Val Gln Arg Thr Leu Ala Ala Lys Asn | | | | | |
| | 355 | | 360 | | 365 |
| Leu Ser His Ala Lys Gly Gly Ala Leu Met Ala Ala Tyr Leu Lys Val | | | | | |
| | 370 | | 375 | | 380 |
| Leu Pro Leu Phe Ile Met Val Phe Pro Gly Met Val Ser Arg Ile Leu | | | | | |
| 385 | | 390 | | 395 | 400 |
| Phe Pro Asp Gln Val Ala Cys Ala Asp Pro Glu Ile Cys Gln Lys Ile | | | | | |
| | 405 | | 410 | | 415 |
| Cys Ser Asn Pro Ser Gly Cys Ser Asp Ile Ala Tyr Pro Lys Leu Val | | | | | |
| | 420 | | 425 | | 430 |
| Leu Glu Leu Leu Pro Thr Gly Leu Arg Gly Leu Met Met Ala Val Met | | | | | |
| | 435 | | 440 | | 445 |
| Val Ala Ala Leu Met Ser Ser Leu Thr Ser Ile Phe Asn Ser Ala Ser | | | | | |
| | 450 | | 455 | | 460 |
| Thr Ile Phe Thr Met Asp Leu Trp Asn His Leu Arg Pro Arg Ala Ser | | | | | |
| 465 | | 470 | | 475 | 480 |
| Glu Lys Glu Leu Met Ile Val Gly Arg Val Phe Val Leu Leu Leu Val | | | | | |
| | 485 | | 490 | | 495 |
| Leu Val Ser Ile Leu Trp Ile Pro Val Val Gln Ala Ser Gln Gly Gly | | | | | |
| | 500 | | 505 | | 510 |
| Gln Leu Phe Ile Tyr Ile Gln Ser Ile Ser Ser Tyr Leu Gln Pro Pro | | | | | |
| | 515 | | 520 | | 525 |
| Val Ala Val Val Phe Ile Met Gly Cys Phe Trp Lys Arg Thr Asn Glu | | | | | |
| | 530 | | 535 | | 540 |
| Lys Gly Ala Phe Trp Gly Leu Ile Ser Gly Leu Leu Leu Gly Leu Val | | | | | |
| 545 | | 550 | | 555 | 560 |
| Arg Leu Val Leu Asp Phe Ile Tyr Val Gln Pro Arg Cys Asp Gln Pro | | | | | |
| | 565 | | 570 | | 575 |
| Asp Glu Arg Pro Val Leu Val Lys Ser Ile His Tyr Leu Tyr Phe Ser | | | | | |
| | 580 | | 585 | | 590 |
| Met Ile Leu Ser Thr Val Thr Leu Ile Thr Val Ser Thr Val Ser Trp | | | | | |
| | 595 | | 600 | | 605 |
| Phe Thr Glu Pro Pro Pro Lys Glu Met Val Ser His Leu Thr Trp Phe | | | | | |

| | | | |
|---|-----|-----|-----|
| 610 | 615 | 620 | |
| Thr Arg His Asp Pro Val Val Gln Lys Glu Gln Ala Pro Pro Ala Ala | | | |
| 625 | 630 | 635 | 640 |
| Pro Leu Ser Leu Thr Leu Ser Gln Asn Gly Met Pro Glu Ala Ser Ser | | | |
| | 645 | 650 | 655 |
| Ser Ser Ser Val Gln Phe Glu Met Val Gln Glu Asn Thr Ser Lys Thr | | | |
| | 660 | 665 | 670 |
| His Ser Cys Asp Met Thr Pro Lys Gln Ser Lys Val Val Lys Ala Ile | | | |
| | 675 | 680 | 685 |
| Leu Trp Leu Cys Gly Ile Gln Glu Lys Gly Lys Glu Glu Leu Pro Ala | | | |
| | 690 | 695 | 700 |
| Arg Ala Glu Ala Ile Ile Val Ser Leu Glu Glu Asn Pro Leu Val Lys | | | |
| 705 | 710 | 715 | 720 |
| Thr Leu Leu Asp Val Asn Leu Ile Phe Cys Val Ser Cys Ala Ile Phe | | | |
| | 725 | 730 | 735 |
| Ile Trp Gly Tyr Phe Ala | | | |
| | 740 | | |

<210> 3121

<211> 368

<212> PRT

<213> Homo sapiens

<400> 3121

| | | | |
|---|----|----|----|
| Met Met Phe Arg Ser Asp Arg Met Trp Ser Cys His Trp Lys Trp Lys | | | |
| 1 | 5 | 10 | 15 |
| Pro Ser Pro Leu Leu Phe Leu Phe Ala Leu Tyr Ile Met Cys Val Pro | | | |
| | 20 | 25 | 30 |
| His Ser Val Trp Gly Cys Ala Asn Cys Arg Val Val Leu Ser Asn Pro | | | |
| | 35 | 40 | 45 |
| Ser Gly Thr Phe Thr Ser Pro Cys Tyr Pro Asn Asp Tyr Pro Asn Ser | | | |
| | 50 | 55 | 60 |
| Gln Ala Cys Met Trp Thr Leu Arg Ala Pro Thr Gly Tyr Ile Ile Gln | | | |
| 65 | 70 | 75 | 80 |
| Ile Thr Phe Asn Asp Phe Asp Ile Glu Glu Ala Pro Asn Cys Ile Tyr | | | |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 |
| Asp Ser Leu Ser Leu Asp Asn Gly Glu Ser Gln Thr Lys Phe Cys Gly | | | | | |
| | 100 | | 105 | | 110 |
| Ala Thr Ala Lys Gly Leu Ser Phe Asn Ser Ser Ala Asn Glu Met His | | | | | |
| | 115 | | 120 | | 125 |
| Val Ser Phe Ser Ser Asp Phe Ser Ile Gln Lys Lys Gly Phe Asn Ala | | | | | |
| | 130 | | 135 | | 140 |
| Ser Tyr Ile Arg Val Ala Val Ser Leu Arg Asn Gln Lys Val Ile Leu | | | | | |
| 145 | | 150 | | 155 | 160 |
| Pro Gln Thr Ser Asp Ala Tyr Gln Val Ser Val Ala Lys Ser Ile Ser | | | | | |
| | 165 | | 170 | | 175 |
| Ile Pro Glu Leu Ser Ala Phe Thr Leu Cys Phe Glu Ala Thr Lys Val | | | | | |
| | 180 | | 185 | | 190 |
| Gly His Glu Asp Ser Asp Trp Thr Ala Phe Ser Tyr Ser Asn Ala Ser | | | | | |
| | 195 | | 200 | | 205 |
| Phe Thr Gln Leu Leu Ser Phe Gly Lys Ala Lys Ser Gly Tyr Phe Leu | | | | | |
| | 210 | | 215 | | 220 |
| Ser Ile Ser Asp Ser Gln Cys Leu Leu Asn Asn Ala Leu Pro Val Lys | | | | | |
| 225 | | 230 | | 235 | 240 |
| Glu Lys Glu Asp Ile Phe Ala Glu Ser Phe Glu Gln Leu Cys Leu Val | | | | | |
| | 245 | | 250 | | 255 |
| Trp Asn Asn Ser Leu Gly Ser Ile Gly Val Asn Phe Lys Arg Asn Tyr | | | | | |
| | 260 | | 265 | | 270 |
| Glu Thr Val Pro Cys Asp Ser Thr Ile Ser Lys Val Ile Pro Gly Asn | | | | | |
| | 275 | | 280 | | 285 |
| Gly Lys Leu Leu Leu Gly Ser Asn Gln Asn Glu Ile Val Ser Leu Lys | | | | | |
| | 290 | | 295 | | 300 |
| Gly Asp Ile Tyr Asn Phe Arg Leu Trp Asn Phe Thr Met Asn Ala Lys | | | | | |
| 305 | | 310 | | 315 | 320 |
| Ile Leu Ser Asn Leu Ser Cys Asn Val Lys Gly Asn Val Val Asp Trp | | | | | |
| | 325 | | 330 | | 335 |
| Gln Asn Asp Phe Trp Asn Ile Pro Asn Leu Ala Leu Lys Ala Glu Ser | | | | | |
| | 340 | | 345 | | 350 |
| Asn Leu Ser Cys Gly Glu Phe Val Ala Tyr Ser Phe Phe Phe Phe | | | | | |
| | 355 | | 360 | | 365 |

<210> 3122

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3122

```

Met Ile Leu Ala Tyr Cys Asn Leu His Leu Ser Ser Ser Ser Asn Ser
  1             5             10             15
Pro Ala Ser Ala Ser Gln Ile Ala Met Ile Thr Gly Ala His His His
      20             25             30
Ala Trp Leu Ile Phe Val Phe Leu Val Gly Met Gly Phe His His Val
      35             40             45
Gly Gln Thr Gly Leu Glu Leu Leu Thr Ser Gly His Leu Pro Ala Ser
      50             55             60
Ala Ser Gln Gly Ala Gly Ile Thr Gly Val Thr Ser Ile Leu Gly Leu
      65             70             75             80
Phe Ile Tyr Leu Phe Phe Glu Met Glu Ser Cys Ser Val Ala Leu Ala
      85             90             95
Gly Val Gln Trp His Gly Leu Gly Ser Leu Gln Pro Gln Pro Pro Gly
      100            105            110
Phe Lys Arg Phe Ser Cys Leu Ser Leu Ser Gly Ser Trp Asp Tyr Arg
      115            120            125
Arg Val Pro Pro His Pro Ala Ser Leu Pro Ile Phe Leu Met Pro Lys
      130            135            140
Arg Thr Tyr Tyr Ile Tyr Thr Leu Phe Cys Thr Leu Leu Pro Val Leu
      145            150            155            160
Asp Ser Leu Gly Thr Ile Pro Tyr Pro Leu Ser Ile Tyr Lys Glu Leu
      165            170            175
Leu Phe His Cys Phe Pro Gln Arg Ser Ser Ile Pro Pro Asp Met Pro
      180            185            190
Lys Phe Ile
      195

```

<210> 3123

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3123

```

Met Ser Gly Leu Thr Val Ser Gln Ser Gly Pro Ser Ser Gly Ser Gly
  1             5             10             15
Gly Gln Thr Ser Gly Leu Ala Val Ser Gln Ser Gly Pro Ser Ser Gly
             20             25             30
Ser Gly Gly Gln Thr Ser Gly Leu Ala Val Ser Ala Glu Trp Pro Phe
      35             40             45
Leu Arg Leu Trp Arg Thr Asp Val Arg Ala Arg Gly Val Thr Glu Trp
      50             55             60
Pro Phe Leu Arg Leu Trp Arg Thr Asp Val Arg Ala Arg Gly Val Ser
      65             70             75             80
Arg Val Ala Leu Pro Pro Ala Leu Glu Asp Arg Ser Leu Gly Ser Arg
             85             90             95
Cys His Arg Val Ala Leu Pro Pro Ala Leu Glu Asp Arg Ser Leu Gly
             100            105            110
Ser Arg Cys Gln Gln Ser Gly Pro Ser Ser Gly Ser Gly Gly Gln Thr
             115            120            125
Ser Gly Leu Ala Val Ser Gln Ser Gly Pro Ser Ser Gly Ser Gly Arg
             130            135            140
Gln Thr Ser Gly Ile Thr Val Ser Ala Glu Trp Pro Phe Leu Trp Leu
      145             150             155             160
Trp Arg Thr Asp Val Trp Asp His Gly Val Ser Arg Gly Ala Leu Pro
             165             170             175
Leu Glu Pro Leu Val Gly Asn Leu Leu Val Ala Ser Phe Gly Phe Trp
             180            185            190
Trp Leu Val Phe Leu Phe Ser Phe Phe Ile Phe Phe Phe Phe Asn Leu
             195            200            205
Ile Arg Asp Arg Val Cys Leu Cys Ser Pro Gly Trp Ser Gln Thr Pro
             210            215            220
Gly Leu Lys Gln Ser Ser Cys Ser Val Leu Thr Lys Cys Cys Gly Tyr
      225             230             235             240

```

Arg Arg Glu Ser Trp Gly Pro Ala Cys Trp Cys Phe Leu Thr Cys Gly
 245 250 255
 Pro Ile Thr Ala Val Ser Ala Phe Arg Val Thr Trp Pro Ser Pro Leu
 260 265 270
 Leu Glu His Pro Leu Leu
 275

<210> 3124

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3124

Met Gly Asn Ser Leu Ser Ile Arg Pro Asp Ser Thr Met Gly Asn Ser
 1 5 10 15
 Thr Pro Val Pro Pro Asp Ser Ser Leu Gly Tyr Ile Ile His His Trp
 20 25 30
 Asn Gln Phe Asp Pro Asp Thr Leu Lys Gly Lys Cys Ile Ile Phe Phe
 35 40 45
 Cys Asn Thr Val Trp Pro His Tyr Glu Leu Pro Ser Pro Gln Gln Trp
 50 55 60
 Ala Val Ser Gly Ser Leu Asn Asp Asp Thr Ile Leu Gln Leu Asp Leu
 65 70 75 80
 Leu Cys Lys Arg Leu Gly Arg Trp Ser Glu Val Pro Tyr Val Gln Ala
 85 90 95
 Phe Ile Lys Ile Ser Lys Thr
 100

<210> 3125

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3125

Met Ala Pro Arg Ser Leu Leu Leu Leu Leu Ser Gly Ala Leu Ala Leu
 1 5 10 15
 Thr Asp Thr Trp Ala Gly Ser His Ser Leu Arg Tyr Phe Ser Thr Ala
 20 25 30
 Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Tyr Ile Ala Val Glu Tyr
 35 40 45
 Val Asp Asp Thr Gln Phe Leu Arg Phe Asp Ser Asp Ala Ala Ile Pro
 50 55 60
 Arg Met Glu Pro Arg Glu Pro Trp Val Glu Gln Glu Gly Pro Gln Tyr
 65 70 75 80
 Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala Asn Ala Gln Thr Asp Arg
 85 90 95
 Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu
 100 105 110
 Thr Leu Gln Arg Ala Asp Pro Pro Lys Ala His Val Ala His His Pro
 115 120 125
 Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr
 130 135 140
 Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr
 145 150 155 160
 Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe
 165 170 175
 Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr
 180 185 190
 Thr Cys His Val Gln His Glu Gly Leu Pro Gln Pro Leu Ile Leu Arg
 195 200 205
 Trp Glu Gln Ser Pro Gln Pro Thr Ile Pro Ile Val Gly Ile Val Ala
 210 215 220
 Gly Leu Val Val Leu Gly Ala Val Val Thr Gly Ala Val Val Ala Ala
 225 230 235 240
 Val Met Trp Arg Lys Lys Ser Ser Asp Arg Asn Arg Gly Ser Tyr Ser
 245 250 255
 Gln Ala Ala Ala Tyr Ser Val Val Ser Gly Asn Leu Met Ile Thr Trp
 260 265 270
 Trp Ser Ser Leu Phe Leu Leu Gly Val Leu Phe Gln Gly Tyr Leu Gly
 275 280 285

Cys Leu Arg Ser His Ser Val Leu Gly Arg Arg Lys Ala Gln Leu Leu
 290 295 300
 Ser Val Ser Thr Ser Gln Thr Ser Ile Leu Ile Gln Glu Gln Phe Ser
 305 310 315 320
 His Gln Arg Thr Leu Ala Met Ser Gly Lys Met Phe Cys Cys His Asp
 325 330 335
 Trp Ser Glu Glu Lys Val Leu Pro Ala Ser Cys Gly Glu
 340 345

<210> 3126

<211> 218

<212> PRT

<213> Homo sapiens

<400> 3126

Met Ala Ala Leu Ile Ala Glu Asn Phe Arg Phe Leu Ser Leu Phe Phe
 1 5 10 15
 Lys Ser Lys Asp Val Met Ile Phe Asn Gly Leu Val Ala Leu Gly Thr
 20 25 30
 Val Gly Ser Gln Glu Leu Phe Ser Val Val Ala Phe His Cys Pro Cys
 35 40 45
 Ser Pro Ala Arg Asn Tyr Leu Tyr Gly Leu Ala Ala Ile Gly Val Pro
 50 55 60
 Ala Leu Val Leu Phe Ile Ile Gly Ile Ile Leu Asn Asn His Thr Trp
 65 70 75 80
 Asn Leu Val Ala Glu Cys Gln His Arg Arg Thr Lys Asn Cys Ser Ala
 85 90 95
 Ala Pro Thr Phe Leu Leu Leu Ser Ser Ile Leu Gly Arg Ala Ala Val
 100 105 110
 Ala Pro Val Thr Trp Ser Val Ile Ser Leu Leu Arg Gly Glu Ala Tyr
 115 120 125
 Val Cys Ala Leu Ser Glu Phe Val Asp Pro Ser Ser Leu Thr Ala Arg
 130 135 140
 Glu Glu His Phe Pro Ser Ala His Ala Thr Glu Ile Leu Ala Arg Phe
 145 150 155 160

Pro Cys Lys Glu Asn Pro Asp Asn Leu Ser Asp Phe Arg Glu Glu Val
 165 170 175
 Ser Arg Arg Leu Arg Tyr Glu Ser Gln Val Arg Ser Cys Ala Lys Gly
 180 185 190
 Ser Ser Ser Ser Leu Val Val Ala Gly Glu Arg Ser Gly Asp Gly Leu
 195 200 205
 Val Leu Lys Leu Gly Leu Val Leu Arg Gly
 210 215

<210> 3127

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3127

Met Ala His Ser Val Pro Ser Asp Ser Arg Thr Ser Arg Arg Pro Thr
 1 5 10 15
 Thr Arg Pro His Ala Ala Arg Gly Ala Pro Arg Gly Ser Arg Arg Pro
 20 25 30
 Gly Arg Thr Pro Lys Trp Arg Leu Pro Arg Ile Ser Ala Arg Ala Pro
 35 40 45
 Tyr Arg Leu Arg Arg Leu Arg Arg His Thr Tyr Trp Pro Pro Arg Arg
 50 55 60
 Pro Val Ala Ala Ser Arg Cys Trp Pro Val Gly Ala Thr Pro Leu Gly
 65 70 75 80
 Ser Val Gly Gly Arg Thr Gly Lys Met Asp Ala Ala Thr Leu Thr Tyr
 85 90 95
 Asp Thr Leu Arg Phe Ala Glu Phe Glu Asp Phe Pro Glu Thr Ser Glu
 100 105 110
 Pro Val Trp Ile Leu Gly Arg Lys Tyr Ser Ile Phe Thr Glu Lys Asp
 115 120 125
 Glu Ile Leu Ser Asp Val Ala Ser Arg Leu Trp Phe Thr Tyr Arg Lys
 130 135 140
 Asn Phe Pro Ala Ile Gly Gly Thr Gly Pro Thr Ser Asp Thr Gly Trp
 145 150 155 160

Gly Cys Met Leu Arg Cys Gly Gln Met Ile Phe Ala Gln Ala Leu Val
 165 170 175
 Cys Arg His Leu Gly Arg Asp Trp Arg Trp Thr Gln Arg Lys Arg Gln
 180 185 190
 Pro Asp Ser Tyr Phe Ser Val Leu Asn Ala Phe Ile Asp Arg Lys Asp
 195 200 205
 Ser Tyr Tyr Ser Ile His Gln Ile Ala Gln Met Gly Val Gly Glu Gly
 210 215 220
 Lys Ser Ile Gly Gln Trp Tyr Gly Pro Asn Thr Val Ala Gln Val Leu
 225 230 235 240
 Lys Lys Leu Ala Val Phe Asp Thr Trp Ser Ser Leu Ala Val His Ile
 245 250 255
 Ala Met Asp Asn Thr Val Val Met Glu Glu Ile Arg Arg Leu Cys Arg
 260 265 270
 Thr Ser Val Pro Cys Ala Gly Ala Thr Ala Phe Pro Ala Asp Ser Asp
 275 280 285
 Arg His Cys Asn Gly Phe Pro Ala Gly Ala Glu Val Thr Asn Arg Pro
 290 295 300
 Ser Pro Trp Arg Pro Leu Val Leu Leu Ile Pro Leu Arg Leu Gly Leu
 305 310 315 320
 Thr Asp Ile Asn Glu Ala Tyr Val Glu Thr Leu Lys His Cys Phe Met
 325 330 335
 Met Pro Gln Ser Leu Gly Val Ile Gly Gly Lys Pro Asn Ser Ala His
 340 345 350
 Tyr Phe Ile Gly Tyr Val Gly Glu Glu Leu Ile Tyr Leu Asp Pro His
 355 360 365
 Thr Thr Gln Pro Ala Val Glu Pro Thr Asp Gly Cys Phe Ile Pro Asp
 370 375 380
 Glu Ser Phe His Cys Gln His Pro Pro Cys Arg Met Ser Ile Ala Glu
 385 390 395 400
 Leu Asp Pro Ser Ile Ala Val Gly Phe Phe Cys Lys Thr Glu Asp Asp
 405 410 415
 Phe Asn Asp Trp Cys Gln Gln Val Lys Lys Leu Ser Leu Leu Gly Gly
 420 425 430
 Ala Leu Pro Met Phe Glu Leu Val Glu Leu Gln Pro Ser His Leu Ala
 435 440 445

Cys Pro Asp Val Leu Asn Leu Ser Leu Gly Glu Ser Cys Gln Val Gln
 450 455 460

Ile Leu Leu Met
 465

<210> 3128

<211> 622

<212> PRT

<213> Homo sapiens

<400> 3128

Met Ala Thr Val Leu Ser Arg Ala Leu Lys Leu Pro Gly Lys Lys Ser
 1 5 10 15
 Pro Asp Leu Gly Glu Tyr Asp Pro Leu Thr Gln Ala Asp Ser Asp Glu
 20 25 30
 Ser Glu Asp Asp Leu Val Leu Asn Leu Gln Lys Asn Gly Gly Val Lys
 35 40 45
 Asn Gly Lys Ser Pro Leu Gly Glu Ala Pro Lys Pro Asp Ser Asp Ala
 50 55 60
 Glu Val Ala Glu Ala Ala Lys Pro His Leu Ser Glu Val Thr Thr Glu
 65 70 75 80
 Gly Tyr Pro Ser Glu Pro Leu Gly Gly Leu Glu Gln Lys Ala Ala Ser
 85 90 95
 Ser Leu Val Ser Tyr Val Arg Thr Ser Val Phe Leu Leu Thr Leu Gly
 100 105 110
 Ile Ser Met Ile Leu Val Leu Leu Cys Ala Phe Leu Ile Pro Cys Pro
 115 120 125
 Pro Arg Asp Leu His Ser Thr Trp Ser Arg His Leu Gly Ser Gln Gly
 130 135 140
 Gly Gly Asp Leu Ser Pro Leu Glu Leu Ala Asp Val Asn Gly Asp Gly
 145 150 155 160
 Leu Arg Asp Val Leu Leu Ser Phe Val Met Ser Arg Asn Gly Ser Ala
 165 170 175
 Val Gly Val Ser Arg Pro Ala Ala Asn Leu Val Cys Pro Ser Gly Met
 180 185 190

Asn Gly Ser Thr Leu Trp Ser Ser Leu Leu Pro Glu Glu Ala Arg Asp
 195 200 205
 Ile Thr Cys Leu Glu Leu Met Pro Gly Ser Leu Ala Glu Thr Ile Cys
 210 215 220

 Leu Val Thr Gly Thr His Lys Met Leu Ser Ala Phe Asn Ala Thr Ser
 225 230 235 240
 Gly Lys Ala Ile Trp Thr Leu Asn Pro Asn Tyr Leu Ser Asn Gly Thr
 245 250 255
 Leu Ala Ala Pro Val Val Val Leu Pro Asp Leu Asp Glu Asp Gly Val
 260 265 270
 Arg Asp Leu Val Val Leu Ala Ile Gly Glu Leu Gln Pro Asp Leu Cys
 275 280 285
 Phe Leu Leu Val Ser Gly Arg Thr Gly Asn Pro Val Gly Arg Pro Val
 290 295 300
 Lys Tyr Asn Ile Val Gly Val Gly Asn Leu Ile Gly Pro Gln Val Tyr
 305 310 315 320
 Ile Thr Thr Asn Gly Ala Val Tyr Ile Leu Phe Gly Phe Gly Asn Ile
 325 330 335
 Gln Ala Val Ala Leu Arg Asp Ile Phe Val Gln Ala Gln Asn Arg Asp
 340 345 350
 Ser Ser Pro Pro Ser Leu Gln Ile Glu Glu Pro Glu Trp Glu Lys Arg
 355 360 365
 Arg Ser Ile Asn Leu Ser Glu Leu Ile Asp Val Tyr Ser Asp Gly Val
 370 375 380
 Glu Leu Leu Gln Met Val Lys Ala Pro Asp Ser Asn Cys Ser Asn Leu
 385 390 395 400
 Leu Ile Thr Thr Arg Gln Ser Leu Val Leu Leu Arg Gly Gln Asn Leu
 405 410 415
 Thr Pro Tyr Trp Ala Leu Arg Leu Gln Gly Leu Arg Ser Gln Pro Thr
 420 425 430
 Pro Gly Tyr Phe Thr Asp Asp Gln Thr Leu Asp Phe Leu Leu Gln Ile
 435 440 445
 Gln Asp Gly Val Gly Met Lys Lys Met Met Val Val Asp Gly Asp Ser
 450 455 460
 Gly Ser Ile Val Trp Ser Tyr Arg Ala Pro Cys His Met Lys Glu Thr

465 470 475 480
 Pro Ala Thr Ser Ala Val Thr Ser Asp Gln Lys Ser Val Phe Leu Phe
 485 490 495
 Trp Ala Glu Gly Leu Ser Ala Ala Ser Pro Asn Ser Asp Ile Ile Leu
 500 505 510
 Gly Thr Glu Pro Pro Ser Leu His His Leu Tyr Leu Leu His Pro Ala
 515 520 525
 Phe Pro Ser Ile Leu Leu Asp Leu Ala Asn Thr Thr Gly Thr Val Thr
 530 535 540
 Ala Ser Glu Val Gly Ile Asn Asp Leu Trp Lys Asp Ala Phe Tyr Val
 545 550 555 560
 Thr Arg Thr Thr Gly Pro Ser Ser Glu Gly His Pro Ala Ala Leu Val
 565 570 575
 Val Ser Lys Leu Ser Leu Arg Trp Ala Leu Met Glu Gly Gln Met Ala
 580 585 590
 Gln Leu Gln Glu Ser Thr Pro Lys Ile Gly Arg Gly Glu Leu Arg Arg
 595 600 605
 Phe Leu Ser Arg Ile Lys Phe Val Glu Ala Pro Tyr Glu Ile
 610 615 620

<210> 3129

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3129

Met Val Arg Trp Val Pro Thr Arg Arg Val Val Val Ile Cys Asp Gly
 1 5 10 15
 Thr Cys Ser His Thr Leu Leu Cys Thr Pro Pro Gly Ser Pro Lys Ser
 20 25 30
 Pro His Ala Gly Ser Pro His Pro Ser Cys Ser Arg Lys His Val Arg
 35 40 45
 Lys Gln Ser Arg Arg Leu Leu Arg Gly Arg His Glu Ser Thr Leu Val
 50 55 60
 Leu Lys Pro Phe Pro Asn Val Leu Val Asp Cys Val Val Leu Pro Lys

65 70 75 80
 Leu Pro Ala Ala Gly Ala Arg Glu Val Thr Pro Ala Gly Ala Ala Ala
 85 90 95
 Gly Gly Ser Pro Arg Trp Leu Ala Leu Phe Leu Phe Cys Phe Phe Phe
 100 105 110

<210> 3130

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3130

Met Ala Ile Lys Glu Ile Ser Asp Ala Leu Ile Asn Met Phe Val His
 1 5 10 15
 Ser Ala Asp Phe Thr Gly Thr Ser Cys Met Ser Asp Pro Leu Ser Gly
 20 25 30
 Trp Trp Gly Val Glu Asp Glu Phe Ser Leu Asn Glu Ile Cys Cys Leu
 35 40 45
 Cys Gly Pro Asp Ser Pro Arg Lys Arg His Thr Arg Thr Val Pro Asp
 50 55 60
 Pro Glu Glu Glu Arg Ala Leu Gln Ser Arg Ala Arg Gln Pro Gly His
 65 70 75 80
 Val Glu Arg Arg Gly Leu His Trp Glu Gly Leu Arg Thr Phe His Arg
 85 90 95
 Val Cys Arg Ala Ala Tyr Leu Pro Gly Gly Ser Val Leu Ala Gly Arg
 100 105 110
 Gly Met Arg Glu Pro Cys Thr Pro Ala Arg Ala Phe Gly Arg Ser Ser
 115 120 125
 Thr Gln Val Arg Lys Ser Pro Val Pro Leu Ser Val
 130 135 140

<210> 3131

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3131

```

Met Trp Asp Pro Leu Ser Asp Gln Ala Ser Ser Leu Asn Val Arg Ser
 1              5              10             15
Ala Gly Gln Gly Pro Gly Ile Trp Glu Leu Pro Gly Ser Gly Leu Gly
      20              25             30
Cys Leu Arg Asp Pro Arg Ile Ser Ser Val Leu Cys Gly Leu Ala Glu
      35              40             45

Gly Ser Gln Ala Lys Ser Ser Gly Ser Ala Val Thr Ala Gly Ala Leu
 50              55             60
Gly Ser Gln Ala Thr Gly Asn Asn Ser Gly Leu Phe Lys Gln Lys Arg
 65              70             75             80
Thr Leu Ser Lys Gly Ser Trp Gly Thr His Lys Ile Thr Lys Arg Ala
      85              90             95
Glu Glu Tyr Ser Trp
      100

```

<210> 3132

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3132

```

Met His Ala Arg Tyr Ile Gly Thr Thr Val Phe Val Arg Gln Val Gly
 1              5              10             15
Arg Tyr Leu Thr Leu Ala Ile Arg Met Pro Glu Asp Leu Ala Met Ser
      20              25             30
Tyr Glu Glu Ser Gln Asp Leu Gln Leu Cys Val Asn Gly Cys Pro Leu
      35              40             45
Ser Glu Arg Ile Asp Asp Gly Gln Gly Gln Val Ser Ala Ile Leu Gly
      50              55             60

His Ser Leu Pro Arg Thr Ser Leu Val Gln Ala Trp Pro Gly Tyr Thr

```


65 70 75 80
 Leu Glu Thr Ala Asn Thr Gln Cys His Glu Lys Met Pro Val Lys Asp
 85 90 95
 Ile Tyr Phe Gln Ser Cys Val Phe Asp Leu Leu Thr Thr Gly Asp Ala
 100 105 110
 Asn Phe Thr Ala Ala Ala His Ser Ala Leu Glu Asp Val Glu Ala Leu
 115 120 125
 His Pro Arg Lys Glu Arg Trp His Ile Phe Pro Ser Ser Gly Asn Gly
 130 135 140
 Thr Pro Arg Gly Gly Ser Asp Leu Ser Val Ser Leu Gly Leu Thr Cys
 145 150 155 160
 Leu Ile Leu Ile Val Phe Leu
 165

<210> 3133

<211> 156

<212> PRT

<213> Homo sapiens

<400> 3133

Met Glu Gly Val Val Gly Pro Gln Ala Ala Thr Cys Arg Leu Ala Ala
 1 5 10 15
 His Cys Ile Met Leu Val Ser Pro Cys Ser Glu Arg Ala Pro Pro Leu
 20 25 30
 Leu Gly Ile Leu Thr His Pro Met His Met Ala Ala Leu Leu Ala Gly
 35 40 45
 Glu Pro Arg Arg Pro Gly Ser Pro Gln Val Pro Ile Cys Ser Ser Phe
 50 55 60
 Thr His Trp Ile Leu Ala Arg Gly Gly Ser Arg Cys Asp Thr Val Tyr
 65 70 75 80
 Ala Thr Phe Gly Ile Gly Leu Ile Leu Tyr Asp Thr Asn Thr Val Met
 85 90 95
 Ala Ser Ser Gln Leu Leu Thr Ala Ser Gln Leu Leu Ser Val Tyr Tyr
 100 105 110
 Pro Ile Asn Ser Pro Ala Thr Leu Arg Ala Gly Ile Val Thr Ser Ala

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Leu Thr Gly Glu Glu Thr Glu Ala Gln Arg Gly Leu Ala Asp Leu Ser | | |
| 130 | 135 | 140 |
| Glu Ala Thr Gln Pro Val Ser Ser Arg Val Gly Ile | | |
| 145 | 150 | 155 |

<210> 3134

<211> 135

<212> PRT

<213> Homo sapiens

<400> 3134

| | | |
|---|-----|-----|
| Met Ser Thr Ala Thr Arg Arg Val Cys Gly Lys Val Glu Gly Glu Pro | | |
| 1 | 5 | 10 |
| Glu Thr Pro Trp Ser Leu Leu Ser Leu Ala Gly Ser Phe Leu Pro Ala | | |
| 20 | 25 | 30 |
| Arg Ser Pro Gln Gly Thr Leu Glu Glu Glu Leu Ser Trp Ser Cys Arg | | |
| 35 | 40 | 45 |
| Gly Pro Gly Thr Gly Arg Ser Gly Gly Gly Pro Gln Gln Pro Arg Ile | | |
| 50 | 55 | 60 |
| Pro Glu Pro Ala Ala Arg Pro Gly Arg Ser Cys Ala Leu Pro Pro Pro | | |
| 65 | 70 | 75 |
| Gly Ala Arg Arg Ser Arg Gly Thr Phe Gln Glu Leu Pro Arg Ala Glu | | |
| 85 | 90 | 95 |
| Val Pro Gly Leu Gly Val Ala Ser Ser Cys Gln Ile Pro Cys Ser Pro | | |
| 100 | 105 | 110 |
| Gly Asp Pro Glu Lys His Arg Ala Ile Pro Asp Pro Gly Thr Phe Arg | | |
| 115 | 120 | 125 |
| Arg Leu Ala Ala Ile Trp Glu | | |
| 130 | 135 | |

<210> 3135

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3135

```

Met Ser Asp His Ala Gly Met Pro Asp Leu Val Leu His Pro Trp Trp
  1             5             10            15
Gln Val Ser Leu Ser Trp Gly Arg Gly Lys Tyr Pro Ser Thr Pro Ser
      20             25            30
Pro Ser Pro Leu Val Ala Ser Pro Ala Phe Leu Gly Gly Lys Asn Pro
      35             40            45
Pro Ile Ala Tyr Phe His Ala Pro Thr Ser Tyr Leu Cys Ala Pro Ile
      50             55            60
Pro Tyr Phe His Ala Pro Ile Ser Tyr Leu Cys Thr Pro Ile Pro Tyr
      65             70            75            80
Phe Arg Ala Pro Thr Leu Ser Leu Leu Phe Trp Arg Gly Arg Lys Pro
      85             90            95
His Pro Phe Ser Met Ser Leu Leu Phe Ser Leu Gly Leu Pro Pro Ser
      100            105            110
Leu Cys Phe His Leu Pro Phe Leu Leu Leu Leu Pro
      115            120

```

<210> 3136

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3136

```

Met Ser Ser Cys Pro Gly Cys Ala Leu Pro Lys Gly Met Cys Thr Ser
  1             5             10            15
Lys Pro Leu Leu Ala Glu Leu Pro Gln Asp His Ala Ser Gly Pro Pro
      20             25            30
Pro Ala Thr Pro Ala Cys Leu Glu Gln Pro Pro His Arg Arg Pro Arg
      35             40            45
Leu Ser Gly Pro Ala Gly Gly Ser Ala Arg Pro Pro Pro Arg Trp Trp
      50             55            60
Arg Arg Ser Pro Leu Ala Ser Gly Arg Cys Pro Arg Tyr Gly Pro Gly

```

65 70 75 80
 Ser Thr Cys Ser Pro Ala His Pro Ser Leu Ala Arg His Leu Ala Glu
 85 90 95
 Gly Arg Gly Ala Asp Gly Trp Arg Ile Pro Ile Arg Thr Ala Ser His
 100 105 110
 Arg Gly Leu Ala Gly Cys Ala Pro Glu Arg
 115 120

<210> 3137

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3137

Met Glu Phe Gly Leu Thr Trp Val Phe Leu Val Ala Leu Leu Lys Gly
 1 5 10 15
 Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Thr Val Val Gln
 20 25 30
 Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Thr Gly Phe Asp Met
 35 40 45
 Pro Ser Phe Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60
 Glu Trp Val Ser Leu Ile Ser Trp Asp Gly Gly Ser Tyr Tyr His Ala
 65 70 75 80
 Asp Ala Val Arg Gly Arg Phe Val Val Ser Arg Asp Asn Gly Arg His
 85 90 95
 Ser Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Thr Ala Leu
 100 105 110
 Tyr Tyr Cys Ala Lys Asp Pro Leu Arg Pro Asn Thr Tyr Tyr Tyr Asp
 115 120 125
 Ser Gly Asp Gly Ala Gly Ile Trp Gly Gln Gly Thr Met Val Thr Val
 130 135 140
 Ser Ser Ala Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys
 145 150 155 160
 Ser Thr Gln Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 165 | | 170 | | 175 |
| Phe Phe Pro Gln Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln | | | | | |
| | 180 | | 185 | | 190 |
| Gly Val Thr Ala Arg Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp | | | | | |
| | 195 | | 200 | | 205 |
| Leu Tyr Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu | | | | | |
| | 210 | | 215 | | 220 |
| Ala Gly Lys Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser | | | | | |
| 225 | | 230 | | 235 | 240 |
| Gln Asp Val Thr Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro | | | | | |
| | 245 | | 250 | | 255 |
| Ser Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg | | | | | |
| | 260 | | 265 | | 270 |
| Leu Ser Leu His Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu | | | | | |
| | 275 | | 280 | | 285 |
| Ala Asn Leu Thr Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val | | | | | |
| | 290 | | 295 | | 300 |
| Thr Phe Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro | | | | | |
| 305 | | 310 | | 315 | 320 |
| Pro Glu Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro | | | | | |
| | 325 | | 330 | | 335 |
| Gly Cys Ala Glu Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala | | | | | |
| | 340 | | 345 | | 350 |
| Ala Tyr Pro Glu Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser | | | | | |
| | 355 | | 360 | | 365 |
| Gly Asn Thr Phe Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu | | | | | |
| | 370 | | 375 | | 380 |
| Glu Leu Ala Leu Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly | | | | | |
| 385 | | 390 | | 395 | 400 |
| Phe Ser Pro Lys Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu | | | | | |
| | 405 | | 410 | | 415 |
| Leu Pro Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser | | | | | |
| | 420 | | 425 | | 430 |
| Gln Gly Thr Thr Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala | | | | | |
| | 435 | | 440 | | 445 |
| Glu Asp Trp Lys Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu | | | | | |

450 455 460
 Ala Leu Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly
 465 470 475 480
 Lys Pro Thr His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly
 485 490 495
 Thr Cys Tyr

<210> 3138

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3138

Met Asn Leu Gly Gly Gly Ala Cys Ser Gln Pro Arg Ser Gly Cys Cys
 1 5 10 15
 Thr Pro Ala Trp Gly Thr Glu Arg Asp Ser Ala Ser Lys Lys Lys Lys
 20 25 30
 Lys Lys Lys Glu Arg Asn Phe Pro Glu Tyr Ser Ser Pro Pro Glu Pro
 35 40 45
 Ser Pro Phe Leu Arg Phe Val Pro Ile Ser Trp Thr Pro Tyr Glu Arg
 50 55 60
 Leu Gln Arg Leu Lys Trp Glu Asp Cys Leu Ser Leu Gly Gly Arg Gly
 65 70 75 80
 Cys Ser Glu Leu Trp Ser Tyr His Cys Thr Leu Ala Trp Ala Thr Glu
 85 90 95
 Arg Asp Leu Val Ser Lys Thr Ala Thr Thr Lys Asn Tyr Leu Gly Ile
 100 105 110

<210> 3139

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3139

Met Gly Leu Gln Pro Leu Glu Phe Ser Asp Cys Tyr Leu Asp Ser Pro
 1 5 10 15
 Trp Phe Arg Glu Arg Ile Arg Ala His Glu Ala Glu Leu Glu Arg Thr
 20 25 30
 Asn Lys Phe Ile Lys Glu Leu Ile Lys Asp Gly Lys Asn Leu Ile Ala
 35 40 45
 Ala Thr Lys Ser Leu Ser Val Ala Gln Arg Lys Phe Ala His Ser Leu
 50 55 60
 Arg Asp Phe Lys Phe Glu Phe Ile Gly Asp Ala Val Thr Asp Asp Glu
 65 70 75 80
 Arg Cys Ile Asp Ala Ser Leu Arg Glu Phe Ser Asn Phe Leu Lys Asn
 85 90 95
 Leu Glu Glu Gln Arg Glu Ile Met Ala Leu Ser Val Thr Glu Thr Leu
 100 105 110
 Ile Lys Pro Leu Glu Lys Phe Arg Lys Glu Gln Leu Gly Ala Val Lys
 115 120 125
 Glu Glu Lys Lys Lys Phe Asp Lys Glu Thr Glu Lys Asn Tyr Ser Leu
 130 135 140
 Ile Asp Lys His Leu Asn Leu Ser Ala Lys Lys Lys Asp Ser His Leu
 145 150 155 160
 Gln Glu Val

<210> 3140

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3140

Met Glu Pro Pro Asn Cys Pro Ile Ile Tyr Val Ser Val Lys Leu Glu
 1 5 10 15
 Phe Ile Arg Leu Val Thr Asn Cys Arg Val Ala Leu Gly His Ser Gly
 20 25 30
 Phe Cys Ser Leu Lys Ile Tyr Leu Val Ala Ser Gln Ser Thr Leu Val

35 40 45
 Thr Gln His Gln Ser Ala Pro Asp Gly Arg Ser Ser Asp Val Lys Ile
 50 55 60
 Gln Val Thr Ala Gln Val Asp Val Leu Leu Leu Val Pro Gly Val Asp
 65 70 75 80
 Phe Ser Ile Phe Pro Pro Val Leu Gly Asp Lys Gly Glu Leu Arg Val
 85 90 95
 Ser Phe Ser Pro Leu Ala Arg
 100

<210> 3141

<211> 182

<212> PRT

<213> Homo sapiens

<400> 3141

Met Ser Leu Gln Phe Ser Gln Gly Leu Arg Ser Trp His Gly Glu Phe
 1 5 10 15
 Val Pro Gly Cys Cys Val Pro Arg Gly Val Leu Gly Glu Gly Phe Arg
 20 25 30
 Gly Ala Arg Gln Gly Val Leu Gly Ser Arg Val Pro Pro Gly Ser Val
 35 40 45
 Trp Glu Pro Cys Ile Thr Arg Gly Arg Arg Val Ser Leu Pro Gly Ser
 50 55 60
 Leu Leu Leu Cys Ile Arg Thr Thr Pro Gly Arg Leu Trp Gly Pro Thr
 65 70 75 80
 Leu His Pro Gln Gly Ser Met Arg Gln Gly Pro Arg Asn Ser Leu Arg
 85 90 95
 Pro Pro Pro Ser Lys Pro Ala Leu Ser Pro Ile Pro Ala His Pro Glu
 100 105 110
 Pro Ser Pro Ala Asn Leu Leu Leu Arg Ser Trp Gln Glu Ala Thr Val
 115 120 125
 Leu Leu Pro Phe Pro Phe Arg Leu Leu Arg Val Thr Asp Pro Asn Arg
 130 135 140
 Glu Ile Ser Ile Cys Leu Pro Ser Gly Cys Pro Ala Arg Arg Ala Leu

145 150 155 160
 His Gly Val Pro Pro Leu Cys Glu Met Gly Gln Asp Pro Ser Ala Arg
 165 170 175
 Gly Ala Trp Gly Trp Gly
 180

<210> 3142

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3142

Met Ala Ala Gly Asn His Ser Gly Gly Thr Cys Trp Pro Ala Leu His
 1 5 10 15
 Pro Val Pro Leu Trp Ala Pro Leu Pro Ser Asp Ser Gly His Pro Trp
 20 25 30
 Ala Pro Ser Leu Tyr Arg Pro Gly Gln Glu Glu Thr Thr Gly Asn His
 35 40 45
 Pro Lys Asp Asn Met Leu Val Gln Cys His Ser Ser Leu Ala Leu Trp
 50 55 60
 Val Pro Leu Trp Pro Val Pro Thr Gly Trp Leu Ile Leu Trp Phe Leu
 65 70 75 80
 Tyr His His Met Pro Ile Leu Arg His Ser Pro Ala Leu Ser Val Arg
 85 90 95
 Glu Cys Lys Phe Cys Asn Ile Phe
 100

<210> 3143

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3143

Met Thr Ala Arg His Pro Ala His Lys Gln Arg Gln Ser Arg Gly Phe

1 5 10 15
 Ser Pro Leu Trp Arg Pro Arg Gln Ser Glu Arg Lys Gly Arg Gly Cys
 20 25 30
 Glu His Leu Arg Ile Tyr Ala Ala Gln Gly Ala Pro Glu Ser Cys Arg
 35 40 45
 Glu Pro Gly Trp Ala Ser Ala Gly Asn Lys Gly Ser Pro Phe Cys Gly
 50 55 60
 Thr Gln Ala Leu Ala Asn Leu Lys His Asp Ser Pro Lys Ser Ala Gly
 65 70 75 80
 Ala Val Pro Glu Pro Ser Ala Ala Gln Cys Pro Arg Arg Thr Ser Asp
 85 90 95
 His Arg Asp Trp Asp Asn Val Lys Ala Gln Pro Ile Gln Ala His Arg
 100 105 110
 Pro Ala His Val Val Leu Gly Pro Ser Ala Cys Ala Leu Gly Lys Trp
 115 120 125
 Leu Pro Trp Asp Cys Ala Arg Ala Ala Ser
 130 135

<210> 3144

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3144

Met Ala Ala Gly Asn His Ser Gly Gly Thr Cys Trp Pro Ala Leu His
 1 5 10 15
 Pro Val Pro Leu Trp Ala Pro Leu Pro Ser Asp Ser Gly His Pro Trp
 20 25 30
 Ala Pro Ser Leu Tyr Arg Pro Gly Gln Glu Glu Thr Thr Gly Asn His
 35 40 45
 Pro Lys Asp Asn Met Leu Val Gln Cys His Ser Ser Leu Ala Leu Trp
 50 55 60
 Val Pro Leu Trp Pro Val Pro Thr Gly Trp Leu Ile Leu Trp Phe Leu
 65 70 75 80
 Tyr His His Met Pro Ile Leu Arg His Ser Pro Ala Leu Ser Val Arg

85 90 95
 Glu Cys Lys Phe Cys Asn Ile Phe
 100

<210> 3145

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3145

Met Gln Leu Arg Gln Gly Leu Lys Tyr Thr Leu Val Ser Cys Ser Thr
 1 5 10 15
 Leu Arg Leu Thr Arg Val Gly Lys Asn Leu Ala Leu Ala Asn Leu Trp
 20 25 30
 Ser Asp Trp Phe Ser Ala Leu Glu Pro Cys Val Leu Leu Phe Lys Met
 35 40 45
 Phe Ile Lys Thr Ile Arg Ala Leu Leu Asn Ile Asp Pro Tyr Gln Glu
 50 55 60
 Phe Tyr Phe Cys Pro Cys Pro Val Ser Ser Glu Ala Cys Asp Leu Cys
 65 70 75 80
 Ser Ala Phe Cys Pro Leu Lys His Val Ile Phe Val Pro Thr Pro Arg
 85 90 95
 Ser Tyr Thr Pro Ser Pro Phe Ala Ile Leu Asn Lys Asn Leu Leu Val
 100 105 110
 Leu Arg Leu Gly Pro Ala Ser Arg Ser Tyr
 115 120

<210> 3146

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3146

Met Val Gln Arg Glu Ser Leu Ser Ser Glu Gly Ala Leu Gly Gly Lys

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Glu Leu Gln Pro Arg Gly Trp Gly Thr His His Ser Arg Ile Pro Lys | | | |
| 20 | 25 | 30 | |
| Ser Cys Thr Pro Ala Gly Arg Ile Leu Val Pro Ser His Tyr His His | | | |
| 35 | 40 | 45 | |
| Ser Pro Pro Val Pro Gln Glu Pro Pro Cys Arg Glu Gln Gln Glu Ser | | | |
| 50 | 55 | 60 | |
| Gly Ser Phe Arg Ala Cys Arg Gly Leu Gly Ser Leu Ala Ser Lys Pro | | | |
| 65 | 70 | 75 | 80 |
| Leu Gly Pro Gly Val Ser Leu Thr Arg Asn Gly Thr Gly Val Glu Pro | | | |
| 85 | 90 | 95 | |
| Trp Gly Cys Gly Gln Ala Gly Leu Phe Pro Gly Pro Gly Asn Gly Ser | | | |
| 100 | 105 | 110 | |
| Gln Gly Trp Ser Leu Ala Gln Val Ser Cys Pro Trp Leu Arg Ser Leu | | | |
| 115 | 120 | 125 | |
| Ser Leu Pro Gly Leu Arg Ala His Leu Lys Ala Glu Ala Glu Leu Pro | | | |
| 130 | 135 | 140 | |
| Pro Lys Leu Pro Leu Gln Glu Glu Glu Pro Glu Asp Ser Gln Ser Glu | | | |
| 145 | 150 | 155 | 160 |
| Pro Ser Pro Ser Ala Lys Gln His Lys Lys Ala Lys Lys Arg Lys Ser | | | |
| 165 | 170 | 175 | |
| Leu Gly Ala Pro Val Leu His Ala Val Ala Ser Met Val Ser Ala Pro | | | |
| 180 | 185 | 190 | |
| Leu Glu Thr Leu Arg Leu Glu Arg Glu Trp Gln Ser Leu Asp Cys Ser | | | |
| 195 | 200 | 205 | |
| Phe Ser Pro Cys Leu Trp Gly Pro Thr Trp His Asn Leu Ala Leu | | | |
| 210 | 215 | 220 | |

<210> 3147

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3147

Met Ala Arg Val Gln Ala Pro Arg Leu Ala Ser Ala Cys Leu Ala His

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ser Cys Pro Leu Ser Gly Gly Gly Cys Ser Glu Glu Ser Gly Cys Arg | | | |
| 20 | 25 | 30 | |
| Leu Thr Ser Pro Glu Lys Pro Glu Pro Lys Met Glu Ile Lys Phe Glu | | | |
| 35 | 40 | 45 | |
| Met Leu Asp Ala Ser Gly Asp Glu Ser Gly Gln Lys Ser Ser Lys Arg | | | |
| 50 | 55 | 60 | |
| Ala Arg Leu Gln Gly Ala Asn Gly Ala Pro Pro Gly Gly Ser Ala Pro | | | |
| 65 | 70 | 75 | 80 |
| Ser Pro Pro Ala Ser Ser Ser Ser Ser Ser Ser Ser Trp Pro Gly | | | |
| 85 | 90 | 95 | |
| Ser Arg Leu Arg Cys Leu Ser Leu Gln Glu Val Gly Leu Val Pro Phe | | | |
| 100 | 105 | 110 | |
| Gly Tyr Leu His Ser Pro Ser Pro His Ser Pro Ser Trp His Phe Pro | | | |
| 115 | 120 | 125 | |
| Cys Cys Ser Phe Met Glu Cys Ala Ser Gly Ser Pro Thr Arg Leu Glu | | | |
| 130 | 135 | 140 | |
| Pro Leu Glu Cys Ile Thr Arg Asp Leu Thr Ile Cys Val Ser Leu Arg | | | |
| 145 | 150 | 155 | 160 |
| Pro Ala Gln Pro Pro His Thr Gly Thr Cys Arg Glu Trp Met | | | |
| 165 | 170 | | |

<210> 3148

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3148

| | | | |
|---|----|----|----|
| Met Lys Trp Gly Trp Val Phe Leu Gly Ala Leu Leu Ser Leu Gly Asn | | | |
| 1 | 5 | 10 | 15 |
| Met Ser Trp Gly Glu Lys Gly Leu Glu Ile Pro Glu Tyr Asp Gly Lys | | | |
| 20 | 25 | 30 | |
| Asp Arg Val His Asp Leu Asn Ala Lys Asn Tyr Lys Ser Val Met Lys | | | |
| 35 | 40 | 45 | |
| Lys Tyr Asp Val Met Val Ile Tyr Tyr His Ala His Val Glu Ser Asn | | | |

| | | | |
|---------------------|---------------------|---------------------|---------|
| 50 | 55 | 60 | |
| Lys Asn Ala Gln Lys | Ala Phe Glu Met Glu | Glu Leu Ala Leu Glu | Leu |
| 65 | 70 | 75 | 80 |
| Ala Ala Gln Val Leu | Asp Asp Leu Asp Asp | Glu Asp Ile Gly Phe | Gly |
| 85 | 90 | 95 | |
| Leu Val Asp Glu Lys | Lys Asp Leu Ser Val | Ala Lys Lys Leu | Gly Leu |
| 100 | 105 | 110 | |
| Asp Glu Val Glu Ser | Ile Tyr Ile Phe Val | Asp Asn Glu Ile | Ile Glu |
| 115 | 120 | 125 | |
| Tyr Asp Gly Glu Leu | Ala Ala Asp Thr Leu | Val Glu Phe Leu | Tyr Asp |
| 130 | 135 | 140 | |
| Val Ile Glu Asp Pro | Val Glu Ile Ile Asp | Asn Glu Arg Glu | Leu Lys |
| 145 | 150 | 155 | 160 |
| Gly Phe His Asn Ile | Asp Glu Asp Ile Lys | Leu Val Gly Tyr | Phe Lys |
| 165 | 170 | 175 | |
| Ser Glu Lys Ser Pro | His Phe Ile Glu Tyr | Asp Asp Ala Ala | Glu Glu |
| 180 | 185 | 190 | |
| Phe His Pro Phe Ile | Lys Phe Phe Ala Thr | Phe Asp Ala Lys | Ile Ala |
| 195 | 200 | 205 | |
| Lys Lys Leu Lys Met | Lys Leu Asn Glu Val | Asp Phe Tyr Glu | Pro Phe |
| 210 | 215 | 220 | |
| Met Glu Glu Pro Val | Thr Ile Pro Gly Gln | Pro Tyr Ser Glu | Ala Glu |
| 225 | 230 | 235 | 240 |
| Leu Val Asp Tyr Ile | Glu Glu His Asp Arg | Pro Thr Leu Arg | Lys Leu |
| 245 | 250 | 255 | |
| Glu Pro His Ser Met | Tyr Glu Thr Trp Glu | Asp Asp Ile Asp | Gly Glu |
| 260 | 265 | 270 | |
| His Ile Val Ala Phe | Ala Glu Glu Asp Asp | Pro Asp Gly Tyr | Glu Phe |
| 275 | 280 | 285 | |
| Leu Glu Ile Leu Lys | Glu Val Ala Arg Glu | Asn Thr Asp Asn | Ala Asp |
| 290 | 295 | 300 | |
| Leu Ser Ile Ile Trp | Ile Asp Pro Asp Asp | Phe Pro Leu Leu | Val Pro |
| 305 | 310 | 315 | 320 |
| Tyr Trp Glu Lys Thr | Phe Gly Ile Asp Leu | Gly Ser Pro Gln | Ile Gly |
| 325 | 330 | 335 | |
| Val Val Asp Val Glu | Asp Ala Asp Ser Val | Trp Met Glu Met | Asp Asp |

340 345 350
 Asp Glu Asp Met Pro Thr Ala Asp Glu Leu Glu Asp Trp Ile Glu Asp
 355 360 365
 Val Leu Ser Gly Lys Ile Asp Pro Asp Asp Asp Asp Asp Asp Asp
 370 375 380
 Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp
 385 390 395 400
 Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp
 405 410 415
 Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp Asp
 420 425 430
 Asp Asp Glu
 435

<210> 3149

<211> 135

<212> PRT

<213> Homo sapiens

<400> 3149

Met Gly Asn Tyr Leu Leu Arg Lys Leu Ser Cys Leu Gly Glu Asn Gln
 1 5 10 15
 Lys Lys Pro Lys Lys Gly Asn Pro Asp Glu Glu Arg Lys Arg Gln Glu
 20 25 30
 Met Thr Thr Phe Glu Arg Lys Leu Gln Asp Arg Asp Lys Lys Ser Gln
 35 40 45
 Glu Val Ser Ser Thr Ser Asn Gln Glu Asn Glu Asn Gly Ser Gly Ser
 50 55 60
 Glu Glu Val Cys Tyr Thr Val Ile Asn His Ile Pro His Gln Arg Ser
 65 70 75 80
 Ser Leu Ser Ser Asn Asp Asp Gly Tyr Glu Asn Ile Asp Ser Leu Thr
 85 90 95
 Arg Lys Val Arg Gln Phe Arg Glu Arg Ser Glu Thr Glu Tyr Ala Leu
 100 105 110
 Leu Arg Thr Ser Val Ser Arg Pro Cys Ser Cys Thr His Glu His Asp

115 120 125
 Tyr Glu Val Val Phe Pro His
 130 135

<210> 3150

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3150

Met Ala Ser Val Lys Asn Arg Arg Val Val Ala Asp Asn Gly Cys Leu
 1 5 10 15
 Pro Gln Thr His Pro Gln Gln Leu Cys Arg His Ser Ser Thr Trp Pro
 20 25 30
 Leu Ala Leu Gly Met Gln Leu Leu Ser Ser Glu Ser Ile Arg Phe Ile
 35 40 45
 Phe Phe Phe Leu Arg Gln Ser Leu Val Leu Ser Pro Arg Leu Glu Cys
 50 55 60
 Ser Gly Val Met Leu Ala His Cys Asn Leu Cys Leu Pro Gly Ser Ser
 65 70 75 80
 Asp Ser Pro Thr Ser Ala Ser Arg Val Ala Trp Thr Thr Gly Thr Arg
 85 90 95
 His Tyr Ala Gln Leu Ile Val Ser Leu Val Glu Thr Val Phe Arg His
 100 105 110
 Phe Gly Gln Thr Gly Leu Glu Leu Leu Thr
 115 120

<210> 3151

<211> 477

<212> PRT

<213> Homo sapiens

<400> 3151

Met Asp Trp Thr Trp Arg Phe Leu Phe Val Val Ala Ala Ala Ala Gly

| | | | |
|-------------|---------------------|---------------------|-------------|
| 1 | 5 | 10 | 15 |
| Val Gln Ser | Leu Leu Gln Leu Val | Gln Ser Gly Ala Glu | Val Lys Lys |
| 20 | 25 | 30 | |
| Pro Gly Ser | Ser Val Thr Val Ser | Cys Glu Ala Ser Gly | Asp Ser Ser |
| 35 | 40 | 45 | |
| Pro Thr Tyr | Thr Ile Ser Trp Val | Arg Gln Ala Pro Gly | Gln Gly Leu |
| 50 | 55 | 60 | |
| Glu Trp Met | Gly Asp Ile Thr Pro | Val Phe Gly Thr Lys | Glu Met Ser |
| 65 | 70 | 75 | 80 |
| Gln Lys Phe | Gln Asp Arg Val Ser | Ile Thr Ala Asp Ser | Val Ser Val |
| 85 | 90 | 95 | |
| Thr Ala Asp | Thr Arg Arg Thr Val | Tyr Leu Glu Val Arg | Arg Leu Thr |
| 100 | 105 | 110 | |
| Ser Asp Asp | Ser Ala Val Tyr Tyr | Cys Ala Lys Ser Glu | Thr Asp His |
| 115 | 120 | 125 | |
| Ser Phe Tyr | Tyr Tyr Ile Glu Leu | Trp Gly Gln Gly Thr | Thr Val Thr |
| 130 | 135 | 140 | |
| Val Ser Ser | Ala Ser Thr Lys Gly | Pro Ser Val Phe Pro | Leu Ala Pro |
| 145 | 150 | 155 | 160 |
| Ser Ser Lys | Ser Thr Ser Gly Gly | Thr Ala Ala Leu Gly | Cys Leu Val |
| 165 | 170 | 175 | |
| Lys Asp Tyr | Phe Pro Glu Pro Val | Thr Val Ser Trp Asn | Ser Gly Ala |
| 180 | 185 | 190 | |
| Leu Thr Ser | Gly Val His Thr Phe | Pro Ala Val Leu Gln | Ser Ser Gly |
| 195 | 200 | 205 | |
| Leu Tyr Ser | Leu Ser Ser Val Val | Thr Val Pro Ser Ser | Ser Leu Gly |
| 210 | 215 | 220 | |
| Thr Gln Thr | Tyr Ile Cys Asn Val | Asn His Lys Pro Ser | Asn Thr Lys |
| 225 | 230 | 235 | 240 |
| Val Asp Lys | Lys Val Glu Pro Lys | Ser Cys Asp Lys Thr | His Thr Cys |
| 245 | 250 | 255 | |
| Pro Pro Cys | Pro Ala Pro Glu Leu | Leu Gly Gly Pro Ser | Val Phe Leu |
| 260 | 265 | 270 | |
| Phe Pro Pro | Lys Pro Lys Asp Thr | Leu Met Ile Ser Arg | Thr Pro Glu |
| 275 | 280 | 285 | |
| Val Thr Cys | Val Val Val Asp Val | Ser His Glu Asp Pro | Glu Val Lys |

| | | | |
|---|-----|-----|-----|
| 290 | 295 | 300 | |
| Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys | | | |
| 305 | 310 | 315 | 320 |
| Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu | | | |
| | 325 | 330 | 335 |
| Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys | | | |
| | 340 | 345 | 350 |
| Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys | | | |
| | 355 | 360 | 365 |
| Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser | | | |
| | 370 | 375 | 380 |
| Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys | | | |
| 385 | 390 | 395 | 400 |
| Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln | | | |
| | 405 | 410 | 415 |
| Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly | | | |
| | 420 | 425 | 430 |
| Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln | | | |
| | 435 | 440 | 445 |
| Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn | | | |
| | 450 | 455 | 460 |
| His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys | | | |
| 465 | 470 | 475 | |

<210> 3152

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3152

| | | | |
|---|----|----|----|
| Met Cys Ala Gly Val His Val Phe Thr Phe Pro Pro Ala Glu Thr Ser | | | |
| 1 | 5 | 10 | 15 |
| Asp Ala Val Lys Pro Ser His Ile Lys Gln Tyr Thr Leu Thr Gly His | | | |
| | 20 | 25 | 30 |
| Ile Ala Leu Trp Asp Ser Lys Val Phe Cys Lys Phe Trp Ser Leu Glu | | | |

35 40 45
 Gly Phe Leu Glu Ser Gly Phe Cys Leu Val Cys Glu His Phe Cys Gln
 50 55 60
 Phe Leu Lys His Gly Leu Pro Cys Leu Leu Pro Arg Cys Arg Ala Val
 65 70 75 80
 Ser Phe Asn His Gly His Pro Leu Ser His His Leu Lys Gly His Thr
 85 90 95
 Phe His Val Glu Cys Gly Arg Leu Glu Ser Leu Lys Asn Thr Leu Phe
 100 105 110
 Phe Pro Ile Thr Leu Cys Ser Phe Leu Gly Asn Met Cys Ser Ile Phe
 115 120 125
 Val Ser His Ser Glu Phe Phe Trp Ala Val Cys Arg Trp Ala Trp Thr
 130 135 140
 Asn Phe Arg Ala
 145

<210> 3153

<211> 336

<212> PRT

<213> Homo sapiens

<400> 3153

Met Tyr Thr Val Leu Thr Gly Thr Pro Pro Phe Met Ala Ser Pro Leu
 1 5 10 15
 Ser Glu Met Tyr Gln Asn Ile Arg Glu Gly His Tyr Pro Glu Pro Ala
 20 25 30
 His Leu Ser Ala Asn Ala Arg Arg Leu Ile Val His Leu Leu Ala Pro
 35 40 45
 Asn Pro Ala Glu Arg Pro Ser Leu Asp His Leu Leu Gln Asp Asp Phe
 50 55 60
 Phe Thr Gln Gly Phe Thr Pro Asp Arg Leu Pro Ala His Ser Cys His
 65 70 75 80
 Ser Pro Pro Ile Phe Ala Ile Pro Pro Pro Leu Gly Arg Ile Phe Arg
 85 90 95
 Lys Val Gly Gln Arg Leu Leu Thr Gln Cys Arg Pro Pro Cys Pro Phe

| | | |
|-----------------------------|-------------------------|-----------------|
| 100 | 105 | 110 |
| Thr Pro Lys Glu Ala Ser Gly | Pro Gly Glu Gly Gly | Pro Asp Pro Asp |
| 115 | 120 | 125 |
| Ser Met Glu Trp Asp Gly Glu | Ser Ser Leu Ser Ala Lys | Glu Val Pro |
| 130 | 135 | 140 |
| Cys Leu Glu Gly Pro Ile His | Leu Val Ala Gln Gly Ile | Leu Gln Ser |
| 145 | 150 | 155 |
| Asp Leu Ala Gly Pro Glu Gly | Ser Arg Arg Pro Glu Val | Glu Ala Ala |
| 165 | 170 | 175 |
| Leu Arg His Leu Gln Leu Cys | Leu Asp Val Gly Pro Pro | Ala Thr Gln |
| 180 | 185 | 190 |
| Asp Pro Leu Gly Glu Gln Gln | Pro Ile Leu Trp Ala Pro | Lys Trp Val |
| 195 | 200 | 205 |
| Asp Tyr Ser Ser Lys Tyr Gly | Phe Gly Tyr Gln Leu Leu | Asp Gly Gly |
| 210 | 215 | 220 |
| Arg Thr Gly Arg His Pro His | Gly Pro Val Thr Pro Arg | Arg Glu Gly |
| 225 | 230 | 235 |
| Thr Leu Pro Thr Pro Val Pro | Pro Ala Gly Pro Gly Leu | Cys Leu Leu |
| 245 | 250 | 255 |
| Arg Phe Leu Ala Ser Glu His | Ala Leu Leu Leu Phe Ser | Asn Gly |
| 260 | 265 | 270 |
| Met Val Gln Val Ser Phe Ser | Gly Val Pro Ala Gln Leu | Val Leu Ser |
| 275 | 280 | 285 |
| Gly Glu Gly Glu Gly Leu Gln | Leu Thr Leu Trp Glu Gln | Gly Ser Pro |
| 290 | 295 | 300 |
| Gly Thr Ser Tyr Ser Leu Asp | Val Pro Gln Ser His Gly | Cys Ala Pro |
| 305 | 310 | 315 |
| Thr Thr Gly Gln His Leu His | His Ala Leu Arg Met Leu | Gln Ser Ile |
| 325 | 330 | 335 |

<210> 3154

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3154

Met Cys Pro Ser Trp Thr Gly Gly Arg Ala Gly His Arg Asp Pro Gly
 1 5 10 15
 Ser Phe Arg Ser Arg Asp Trp Arg Val Gly Arg His Pro Trp Glu His
 20 25 30
 Pro Cys Pro Pro Ser Ala Ala Gln Gly Arg Gly Gly Glu Pro Gly Phe
 35 40 45
 Gly Pro His Leu Ile Lys Ser Pro Pro Gln Thr Pro Gln Ala Asn Thr
 50 55 60
 Gly Arg Trp Ala Val Thr Pro Arg Ser Pro Ala Ala Ala Thr Leu Leu
 65 70 75 80
 Trp Thr Ser Ser Ser Ser Ala Thr Ile Thr Arg Trp Pro Ser Arg
 85 90 95
 Trp Ala Gly Ala Thr
 100

<210> 3155

<211> 505

<212> PRT

<213> Homo sapiens

<400> 3155

Met Pro Gln Gln Leu Leu Ile Thr Leu Pro Thr Glu Ala Ser Thr Trp
 1 5 10 15
 Val Lys Leu Gln His Pro Lys Lys Ala Val Glu Gly Ala Pro Leu Trp
 20 25 30
 Glu Asp Val Thr Lys Met Phe Glu Gly Glu Ala Leu Leu Ser Gln Asp
 35 40 45
 Ala Glu Asp Val Lys Thr Gln Arg Glu Ser Leu Glu Asp Glu Val Thr
 50 55 60
 Pro Gly Leu Pro Thr Ala Glu Ser Gln Glu Leu Leu Thr Phe Lys Asp
 65 70 75 80
 Ile Ser Ile Asp Phe Thr Gln Glu Glu Trp Gly Gln Leu Ala Pro Ala
 85 90 95
 His Gln Asn Leu Tyr Arg Glu Val Met Leu Glu Asn Tyr Ser Asn Leu

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Val Ser Val Gly Tyr Gln Leu Ser Lys Pro Ser Val Ile Ser Gln Leu | | |
| 115 | 120 | 125 |
| Glu Lys Gly Glu Glu Pro Trp Met Ala Glu Lys Glu Gly Pro Gly Asp | | |
| 130 | 135 | 140 |
| Pro Ser Ser Asp Leu Lys Ser Lys Ile Glu Thr Ile Glu Ser Thr Ala | | |
| 145 | 150 | 155 |
| Lys Ser Thr Ile Ser Gln Glu Arg Leu Tyr His Gly Ile Met Met Glu | | |
| 165 | 170 | 175 |
| Ser Phe Met Arg Asp Asp Ile Ile Tyr Ser Thr Leu Arg Lys Val Ser | | |
| 180 | 185 | 190 |
| Thr Tyr Asp Asp Val Leu Glu Arg His Gln Glu Thr Cys Met Arg Asp | | |
| 195 | 200 | 205 |
| Val Arg Gln Ala Ile Leu Thr His Lys Lys Arg Val Gln Glu Thr Asn | | |
| 210 | 215 | 220 |
| Lys Phe Gly Glu Asn Ile Ile Val His Ser Asn Val Ile Ile Glu Gln | | |
| 225 | 230 | 235 |
| Arg His His Lys Tyr Asp Thr Pro Thr Lys Arg Asn Thr Tyr Lys Leu | | |
| 245 | 250 | 255 |
| Asp Leu Ile Asn His Pro Thr Ser Tyr Ile Arg Thr Lys Thr Tyr Glu | | |
| 260 | 265 | 270 |
| Cys Asn Ile Cys Glu Lys Ile Phe Lys Gln Pro Ile His Leu Thr Glu | | |
| 275 | 280 | 285 |
| His Met Arg Ile His Thr Gly Glu Lys Pro Phe Arg Cys Lys Glu Cys | | |
| 290 | 295 | 300 |
| Gly Arg Ala Phe Ser Gln Ser Ala Ser Leu Ser Thr His Gln Arg Ile | | |
| 305 | 310 | 315 |
| His Thr Gly Glu Lys Pro Phe Glu Cys Glu Glu Cys Gly Lys Ala Phe | | |
| 325 | 330 | 335 |
| Arg His Arg Ser Ser Leu Asn Gln His His Arg Thr His Thr Gly Glu | | |
| 340 | 345 | 350 |
| Lys Pro Tyr Val Cys Asp Lys Cys Gln Lys Ala Phe Ser Gln Asn Ile | | |
| 355 | 360 | 365 |
| Ser Leu Val Gln His Leu Arg Thr His Ser Gly Glu Lys Pro Phe Thr | | |
| 370 | 375 | 380 |
| Cys Asn Glu Cys Gly Lys Thr Phe Arg Gln Ile Arg His Leu Ser Glu | | |

385 390 395 400
 His Ile Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys Thr Ala Cys
 405 410 415
 Cys Lys Thr Phe Ser His Arg Ala Tyr Leu Thr His His Gln Arg Ile
 420 425 430
 His Thr Gly Glu Arg Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe
 435 440 445
 Arg Gln Arg Ile His Leu Ser Asn His Lys Thr Val His Thr Gly Val
 450 455 460
 Lys Ala Tyr Glu Cys Asn Arg Cys Gly Lys Ala Tyr Arg His Asp Ser
 465 470 475 480
 Ser Phe Lys Lys His Gln Arg His His Thr Gly Glu Lys Pro Tyr Glu
 485 490 495
 Cys Asn Glu Cys Gly Lys Ala Phe Ser
 500 505

<210> 3156

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3156

Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn Gly
 1 5 10 15
 Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala Glu
 20 25 30
 Glu Ala Ala Lys Lys Lys Arg Arg Lys Lys Lys Lys Ser Lys Gly Pro
 35 40 45
 Ser Ala Ala Gly Glu Gln Glu Pro Asp Lys Glu Ser Gly Ala Ser Val
 50 55 60
 Asp Glu Val Ala Arg Gln Leu Glu Arg Ser Ala Leu Glu Asp Lys Glu
 65 70 75 80
 Arg Asp Glu Asp Asp Glu Asp Gly Asp Gly Asp Gly Ala Thr
 85 90 95
 Gly Lys Lys Lys Lys Lys Lys Lys Lys Lys Arg Gly Pro Lys Val Gln

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Thr Asp Pro Pro Ser Val Pro Ile Cys Asp Leu Tyr Pro Asn Gly Val | | |
| 115 | 120 | 125 |
| Phe Pro Lys Gly Gln Glu Cys Glu Tyr Pro Pro Thr Gln Asp Gly Arg | | |
| 130 | 135 | 140 |
| Thr Ala Ala Trp Arg Thr Thr Ser Glu Glu Lys Lys Ala Leu Asp Gln | | |
| 145 | 150 | 155 |
| Ala Ser Glu Glu Ile Trp Asn Asp Phe Arg Glu Ala Ala Glu Ala His | | |
| 165 | 170 | 175 |
| Arg Gln Val Arg Lys Tyr Val Met Ser Trp Ile Lys Pro Gly Met Thr | | |
| 180 | 185 | 190 |
| | | |
| Met Ile Glu Ile Cys Glu Lys Leu Glu Asp Cys Ser Arg Lys Leu Ile | | |
| 195 | 200 | 205 |
| Lys Glu Asn Gly Leu Asn Ala Gly Leu Ala Phe Pro Thr Gly Cys Ser | | |
| 210 | 215 | 220 |
| Leu Asn Asn Cys Ala Ala His Tyr Thr Pro Asn Ala Gly Asp Thr Thr | | |
| 225 | 230 | 235 |
| Val Leu Gln Tyr Asp Asp Ile Cys Lys Ile Asp Phe Gly Thr His Ile | | |
| 245 | 250 | 255 |
| Ser Gly Arg Ile Ile Asp Cys Ala Phe Thr Val Thr Phe Asn Pro Lys | | |
| 260 | 265 | 270 |
| Tyr Asp Thr Leu Leu Lys Ala Val Lys Asp Ala Thr Asn Thr Gly Ile | | |
| 275 | 280 | 285 |
| Lys Cys Ala Gly Ile Asp Val Arg Leu Cys Asp Val Gly Glu Ala Ile | | |
| 290 | 295 | 300 |
| Gln Glu Val Met Glu Ser Tyr Glu Val Glu Ile Asp Gly Lys Thr Tyr | | |
| 305 | 310 | 315 |
| Gln Arg Arg Arg Ser Ile Cys Asn | | 320 |
| 325 | | |

<210> 3157

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3157

Met Val His Val Glu Cys Ile Lys Pro Thr Gly Pro Glu Ser Leu Leu
 1 5 10 15
 Thr Gly Asp Phe Leu Glu Met Glu Ser Arg Ser Val Ala Gln Ala Gly
 20 25 30
 Glu Cys Asn Gly Ala Ile Leu Ala His Cys Asn Leu His Leu Leu Gly
 35 40 45
 Ser Ser Asp Ser Pro Ala Ser Ala Ser Arg Val Ala Gly Ile Thr Gly
 50 55 60
 Gly Cys His His Thr Gln Leu Ser Ile Val Phe Leu Ala Glu Met Gly
 65 70 75 80
 Phe His His Phe Ala Gln Ala Gly Leu Glu Leu Leu Thr Ser Asn Tyr
 85 90 95
 Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Ala Arg Gly
 100 105 110
 Phe Leu Met Trp Leu Leu Leu Leu Arg Arg Pro Cys Pro
 115 120 125

<210> 3158

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3158

Met Pro Leu Ile Leu Ser Ile Leu Ser Gly Asn Val Pro Arg Leu Leu
 1 5 10 15
 Leu Pro Gly Ser Trp Leu His Asn Leu Ile Phe Pro Lys Arg Val Ala
 20 25 30
 Ile Pro Ala Ala Pro Gly Thr Ser Glu Pro Leu Pro Leu His Phe Trp
 35 40 45
 Cys Ala Ser Glu Ser Arg Ser Ala Cys Trp Arg Arg Leu Trp Pro Arg
 50 55 60
 Pro Pro Gly Arg Phe Leu Arg Met Gly Ser Thr Arg Gly Ala Glu Pro
 65 70 75 80

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Lys | Trp | Thr | Ala | His | Val | Cys | Cys | His | Glu | Ala | Trp | Gln | Gln |
| 85 | | | | | | | | 90 | | | | 95 | | | |
| His | His | Thr | Pro | Leu | Cys | Gly | Val | Leu | Leu | Ala | Gly | Gly | Gln | Arg | Arg |
| 100 | | | | | | | | 105 | | | | 110 | | | |
| Ala | Leu | Ser | Ser | Pro | Ala | Thr | Ala | Ala | Ala | His | Ser | Arg | Leu | Leu | Pro |
| 115 | | | | | | 120 | | | | 125 | | | | | |
| Gly | His | Ile | Ala | His | Trp | Pro | Gly | His | Ala | Pro | Val | Leu | Trp | Gln | Pro |
| 130 | | | | | | | 135 | | | | 140 | | | | |
| Leu | Val | Pro | Asp | Asn | Phe | His | Pro | Asp | Ser | Gly | Pro | Cys | Arg | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Asn | Thr | Arg | Ser | Pro | Ser | Gln | Ala | Phe | Leu | Pro | Leu | Pro | Ser | Ala |
| 165 | | | | | | | | 170 | | | | 175 | | | |
| Ala | | Leu | | | | | | | | | | | | | |

<210> 3159

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3159

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | Lys | Glu | Ala | Gly | Ala | Ile | Ile | Ser | Thr | Arg | His | Cys | Asn | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Asn | Gly | Asp | Arg | Cys | Val | Ala | Ala | Leu | Ala | Arg | Val | Glu | Cys | Thr |
| | | | 20 | | | | | | 25 | | | | | 30 | |
| His | Phe | Leu | Trp | Pro | Met | Cys | Ile | Gly | Glu | Val | Ala | His | Val | Ser | Ala |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Glu | Ile | Thr | Tyr | Thr | Ser | Lys | His | Ser | Val | Glu | Val | Gln | Val | Asn | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Ser | Glu | Asn | Ile | Leu | Thr | Gly | Ala | Lys | Lys | Leu | Thr | Asn | Lys | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Leu | Trp | Tyr | Ala | Pro | Leu | Ser | Leu | Thr | Asn | Val | Asp | Lys | Val | Leu |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Glu | Glu | Pro | Pro | Val | Val | Tyr | Phe | Arg | Gln | Glu | Gln | Glu | Glu | Glu | Gly |
| | | 100 | | | | | | 105 | | | | | | 110 | |

Gln Lys Arg Tyr Lys Thr Gln Lys Leu Glu Arg Met Glu Thr Asn Trp
 115 120 125
 Arg Asn Gly Asp Ile Val Gln Pro Val Leu Asn Pro Glu Pro Asn Thr
 130 135 140
 Val Ser Tyr Ser Gln Ser Ser Leu Ile His Leu Val Gly Pro Ser Asp
 145 150 155 160
 Cys Thr Leu His Ser Phe Val His Glu Gly Val Thr Met Lys Val Met
 165 170 175
 Asp Glu Val Ala Gly Ile Leu Ala Ala Arg His Cys Lys Thr Asn Leu
 180 185 190
 Val Thr Ala Ser Met Glu Ala Ile Asn Phe Asp Asn Lys Ile Arg Lys
 195 200 205
 Gly Cys Ile Lys Thr Ile Ser Gly Arg Met Thr Phe Thr Ser Asn Lys
 210 215 220
 Ser Val Glu Ile Glu Val Leu Val Asp Ala Asp Cys Val Val Asp Ser
 225 230 235 240
 Ser Gln Lys Arg Tyr Arg Ala Ala Ser Val Phe Thr
 245 250

<210> 3160

<211> 458

<212> PRT

<213> Homo sapiens

<400> 3160

Met Glu Leu Pro Leu Gly Arg Cys Asp Asp Ser Arg Thr Trp Asp Asp
 1 5 10 15
 Asp Ser Asp Pro Glu Ser Glu Thr Asp Pro Asp Ala Gln Ala Lys Ala
 20 25 30
 Tyr Val Ala Arg Val Leu Ser Pro Pro Lys Ser Gly Leu Ala Phe Ser
 35 40 45
 Arg Pro Ser Gln Leu Ser Thr Pro Ala Ala Ser Pro Ser Ala Ser Glu
 50 55 60
 Pro Arg Ala Ala Ser Arg Val Ser Ala Val Ser Glu Pro Gly Leu Leu
 65 70 75 80

Ser Leu Pro Pro Glu Leu Leu Leu Glu Ile Cys Ser Tyr Leu Asp Ala
 85 90 95
 Arg Leu Val Leu His Val Leu Ser Arg Val Cys His Ala Leu Arg Asp
 100 105 110
 Leu Val Ser Asp His Val Thr Trp Arg Leu Arg Ala Leu Arg Arg Val
 115 120 125
 Arg Ala Pro Tyr Pro Val Val Glu Glu Lys Asn Phe Asp Trp Pro Ala
 130 135 140
 Ala Cys Ile Ala Leu Glu Gln His Leu Ser Arg Trp Ala Glu Asp Gly
 145 150 155 160
 Arg Trp Val Glu Tyr Phe Cys Leu Ala Glu Gly His Val Ala Ser Val
 165 170 175
 Asp Ser Val Leu Leu Leu Gln Gly Gly Ser Leu Cys Leu Ser Gly Ser
 180 185 190
 Arg Asp Arg Asn Val Asn Leu Trp Asp Leu Arg Gln Leu Gly Thr Glu
 195 200 205
 Ser Asn Gln Val Leu Ile Lys Thr Leu Gly Thr Lys Arg Asn Ser Thr
 210 215 220
 His Glu Gly Trp Val Trp Ser Leu Ala Ala Gln Asp His Arg Val Cys
 225 230 235 240
 Ser Gly Ser Trp Asp Ser Thr Val Lys Leu Trp Asp Met Ala Ala Asp
 245 250 255
 Gly Gln Gln Phe Gly Glu Ile Lys Ala Ser Ser Ala Val Leu Cys Leu
 260 265 270
 Ser Tyr Leu Pro Asp Ile Leu Val Thr Gly Thr Tyr Asp Lys Lys Val
 275 280 285
 Thr Ile Tyr Asp Pro Arg Ala Gly Pro Ala Leu Leu Lys His Gln Gln
 290 295 300
 Leu His Ser Arg Pro Val Leu Thr Leu Leu Ala Asp Asp Arg His Ile
 305 310 315 320
 Ile Ser Gly Ser Glu Asp His Thr Leu Val Val Val Asp Arg Arg Ala
 325 330 335
 Asn Ser Val Leu Gln Arg Leu Gln Leu Asp Ser Tyr Leu Leu Cys Met
 340 345 350
 Ser Tyr Gln Glu Pro Gln Leu Trp Ala Gly Asp Asn Gln Gly Leu Leu
 355 360 365

His Val Phe Ala Asn Arg Asn Gly Cys Phe Gln Leu Ile Arg Ser Phe
 370 375 380
 Asp Val Gly His Ser Phe Pro Ile Thr Gly Ile Gln Tyr Ser Val Gly
 385 390 395 400
 Ala Leu Tyr Thr Thr Ser Thr Asp Lys Thr Ile Arg Val His Val Pro
 405 410 415
 Thr Asp Pro Pro Arg Thr Ile Cys Thr Arg Arg His Asp Asn Gly Leu
 420 425 430
 Asn Arg Val Cys Ala Glu Gly Asn Leu Val Val Ala Gly Ser Gly Asp
 435 440 445
 Leu Ser Leu Glu Val Trp Arg Leu Gln Ala
 450 455

<210> 3161

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3161

Met Phe Ser Pro Asp Gln Ser Ser Met Pro Met Ser Asn Val Gly Thr
 1 5 10 15
 Thr Arg Leu Ser His Met Pro Leu Pro Pro Ala Ser Asn Pro Pro Gly
 20 25 30
 Thr Val His Ser Ala Pro Asn Arg Gly Leu Gly Arg Arg Pro Ser Asp
 35 40 45
 Leu Thr Ile Ser Ile Asn Gln Met Gly Ser Pro Gly Met Gly His Leu
 50 55 60
 Lys Ser Pro Thr Leu Ser Gln Val His Ser Pro Leu Val Thr Ser Pro
 65 70 75 80
 Ser Ala Asn Leu Lys Ser Pro Gln Thr Pro Ser Gln Met Val Pro Leu
 85 90 95
 Pro Ser Ala Asn Pro Pro Gly Pro Leu Lys Ser Pro Gln Val Leu Gly
 100 105 110
 Ser Ser Leu Ser Val Arg Ser Pro Thr Gly Ser Pro Ser Arg Leu Lys
 115 120 125

Ser Pro Ser Met Ala Val Pro Ser Pro Gly Trp Val Ala Ser Pro Lys
 130 135 140
 Thr Ala Met Pro Ser Pro Gly Val Ser Gln Asn Lys Gln Pro Pro Leu
 145 150 155 160
 Asn Met Asn Ser Ser Thr Thr Leu Ser Asn Met Glu Gln Gly Thr Leu
 165 170 175
 Pro Pro Ser Gly Pro Arg Ser Ser Ser Ser Ala Pro Pro Ala Asn Pro
 180 185 190
 Pro Ser Gly Leu Met Asn Pro Ser Leu Pro Phe Thr Ser Ser Pro Asp
 195 200 205
 Pro Thr Pro Ser Gln Asn Pro Leu Ser Leu Met Met Thr Gln Met Ser
 210 215 220

 Lys Tyr Ala Met Pro Ser Ser Thr Pro Leu Tyr His Asn Ala Ile Lys
 225 230 235 240
 Thr Ile Ala Thr Ser Asp Asp Glu Leu Leu Pro Asp Arg Pro Leu Leu
 245 250 255
 Pro Pro Pro Pro Pro Pro Gln Gly Ser Gly Pro Gly Ile Ser Asn Ser
 260 265 270
 Gln Pro Ser Gln Met His Leu Asn Ser Ala Ala Ala Gln Ser Pro Met
 275 280 285
 Gly Met Asn Leu Pro Gly Gln Gln Pro Leu Ser His Glu Pro Pro Pro
 290 295 300
 Ala Met Leu Pro Ser Pro Thr Pro Leu Gly Ser Asn Ile Pro Leu His
 305 310 315 320
 Pro Asn Ala Gln Gly Thr Gly Gly Pro Pro Gln Asn Ser Met Met Met
 325 330 335
 Ala Pro Gly Gly Pro Asp Ser Leu Asn Ala Pro Cys Gly Pro Val Pro
 340 345 350
 Ser Ser Ser Gln Met Met Pro Phe Pro Pro Arg Leu Gln Gln Pro His
 355 360 365
 Gly Ala Met Ala Pro Thr Gly Gly Gly Gly Gly Gly Pro Gly Leu Gln
 370 375 380
 Gln His Tyr Pro Ser Gly Met Ala Leu Pro Pro Glu Asp Leu Pro Asn
 385 390 395 400
 Gln Pro Pro Gly Pro Met Pro Pro Gln Gln His Leu Met Gly Lys Ala

| | | |
|---|-----|-----|
| 405 | 410 | 415 |
| Met Ala Gly Arg Met Gly Asp Ala Tyr Pro Pro Gly Val Leu Pro Gly | | |
| 420 | 425 | 430 |
| Val Ala Ser Val Leu Asn Asp Pro Glu Leu Ser Glu Val Ile Arg Pro | | |
| 435 | 440 | 445 |
| Thr Pro Thr Gly Ile Pro Glu Phe Asp Leu Ser Arg Ile Ile Pro Ser | | |
| 450 | 455 | 460 |
| Glu Lys Pro Ser Ser Thr Leu Gln Tyr Phe Pro Lys Ser Glu Asn Gln | | |
| 465 | 470 | 475 |
| Pro Pro Lys Ala Gln Pro Pro Asn Leu His Leu Met Asn Leu Gln Asn | | |
| 485 | 490 | 495 |
| Met Met Ala Glu Gln Thr Pro Ser Arg Pro Pro Asn Leu Pro Gly Gln | | |
| 500 | 505 | 510 |
| Gln Gly Val Gln Arg Gly Leu Asn Met Ser Met Cys His Pro Gly Gln | | |
| 515 | 520 | 525 |
| Met Ser Leu Leu Gly Arg Thr Gly Val Pro Pro Gln Gln Gly Met Val | | |
| 530 | 535 | 540 |
| Pro His Gly Leu His Gln Gly Val Met Ser Pro Pro Gln Gly Leu Met | | |
| 545 | 550 | 555 |
| Thr Gln Gln Asn Phe Met Leu Met Lys Gln Arg Gly Val Gly Gly Glu | | |
| 565 | 570 | 575 |
| Val Tyr Ser Gln Pro Pro His Met Leu Ser Pro Gln Gly Ser Leu Met | | |
| 580 | 585 | 590 |
| Gly Pro Pro Pro Gln Gln Asn Leu Met Val Ser His Pro Leu Arg Gln | | |
| 595 | 600 | 605 |
| Arg Ser Val Ser Leu Asp Ser Gln Met Gly Tyr Leu Pro Ala Pro Gly | | |
| 610 | 615 | 620 |
| Gly Met Ala Asn Leu Pro Phe | | |
| 625 | 630 | |

<210> 3162

<211> 542

<212> PRT

<213> Homo sapiens

<400> 3162

Met Pro Arg Arg Gly Leu Ile Leu His Thr Arg Thr His Trp Leu Leu
 1 5 10 15
 Leu Gly Leu Ala Leu Leu Cys Ser Leu Val Leu Phe Met Tyr Leu Leu
 20 25 30
 Glu Cys Ala Pro Gln Thr Asp Gly Asn Ala Ser Leu Pro Gly Val Val
 35 40 45
 Gly Glu Asn Tyr Gly Lys Glu Tyr Tyr Gln Ala Leu Leu Gln Glu Gln
 50 55 60
 Glu Glu His Tyr Gln Thr Arg Ala Thr Ser Leu Lys Arg Gln Ile Ala
 65 70 75 80
 Gln Leu Lys Gln Glu Leu Gln Glu Met Ser Glu Lys Met Arg Ser Leu
 85 90 95
 Gln Glu Arg Arg Asn Val Gly Ala Asn Gly Ile Gly Tyr Gln Ser Asn
 100 105 110
 Lys Glu Gln Ala Pro Ser Asp Leu Leu Glu Phe Leu His Ser Gln Ile
 115 120 125
 Asp Lys Ala Glu Val Ser Ile Gly Ala Lys Leu Pro Ser Glu Tyr Gly
 130 135 140
 Val Ile Pro Phe Glu Ser Phe Thr Leu Met Lys Val Phe Gln Leu Glu
 145 150 155 160
 Met Gly Leu Thr Arg His Pro Glu Glu Lys Pro Val Arg Lys Asp Lys
 165 170 175
 Arg Asp Glu Leu Val Glu Val Ile Glu Ala Gly Leu Glu Val Ile Asn
 180 185 190
 Asn Pro Asp Glu Asp Asp Glu Gln Glu Asp Glu Glu Gly Pro Leu Gly
 195 200 205
 Glu Lys Leu Ile Phe Asn Glu Asn Asp Phe Val Glu Gly Tyr Tyr Arg
 210 215 220
 Thr Glu Arg Asp Lys Gly Thr Gln Tyr Glu Leu Phe Phe Lys Lys Ala
 225 230 235 240
 Asp Leu Thr Glu Tyr Arg His Val Thr Leu Phe Arg Pro Phe Gly Pro
 245 250 255
 Leu Met Lys Val Lys Ser Glu Met Ile Asp Ile Thr Arg Ser Ile Ile
 260 265 270
 Asn Ile Ile Val Pro Leu Ala Glu Arg Thr Glu Ala Phe Val Gln Phe

| | | |
|-----------------------------|-------------------------|-------------|
| 275 | 280 | 285 |
| Met Gln Asn Phe Arg Asp Val | Cys Ile His Gln Asp Lys | Lys Ile His |
| 290 | 295 | 300 |
| Leu Thr Val Val Tyr Phe Gly | Lys Glu Gly Leu Ser Lys | Val Lys Ser |
| 305 | 310 | 315 |
| Ile Leu Glu Ser Val Thr Ser | Glu Ser Asn Phe His Asn | Tyr Thr Leu |
| 325 | 330 | 335 |
| Val Ser Leu Asn Glu Glu Phe | Asn Arg Gly Arg Gly Leu | Asn Val Gly |
| 340 | 345 | 350 |
| Ala Arg Ala Trp Asp Lys Gly | Glu Val Leu Met Phe Phe | Cys Asp Val |
| 355 | 360 | 365 |
| Asp Ile Tyr Phe Ser Ala Glu | Phe Leu Asn Ser Cys Arg | Leu Asn Ala |
| 370 | 375 | 380 |
| Glu Pro Gly Lys Lys Val Phe | Tyr Pro Val Val Phe Ser | Leu Tyr Asn |
| 385 | 390 | 395 |
| Pro Ala Ile Val Tyr Ala Asn | Gln Glu Val Pro Pro Pro | Val Glu Gln |
| 405 | 410 | 415 |
| Gln Leu Val His Lys Lys Asp | Ser Gly Phe Trp Arg Asp | Phe Gly Phe |
| 420 | 425 | 430 |
| Gly Met Thr Cys Gln Tyr Arg | Ser Asp Phe Leu Thr Ile | Gly Gly Phe |
| 435 | 440 | 445 |
| Asp Met Glu Val Lys Gly Trp | Gly Gly Glu Asp Val His | Leu Tyr Arg |
| 450 | 455 | 460 |
| Lys Tyr Leu His Gly Asp Leu | Ile Val Ile Arg Thr Pro | Val Pro Gly |
| 465 | 470 | 475 |
| Leu Phe His Leu Trp His Glu | Lys Arg Cys Ala Asp Glu | Leu Thr Pro |
| 485 | 490 | 495 |
| Glu Gln Tyr Arg Met Cys Ile | Gln Ser Lys Ala Met Asn | Glu Ala Ser |
| 500 | 505 | 510 |
| His Ser His Leu Gly Met Leu | Val Phe Arg Glu Glu Ile | Glu Thr His |
| 515 | 520 | 525 |
| Leu His Lys Gln Ala Tyr Arg | Thr Asn Ser Glu Ala Val | Gly |
| 530 | 535 | 540 |

<211> 222

<212> PRT

<213> Homo sapiens

<400> 3163

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Met Tyr Gln Asp Phe Ile Phe Phe Phe Phe Phe Leu Arg Trp Ser Phe
  1             5             10             15
Ile Leu Leu Ala Gln Ala Gly Val Gln Trp Cys Ser Leu Ser Ser Leu
      20             25             30
Gln Pro Leu Pro Ser Arg Phe Lys Arg Phe Ser Cys Leu Gly Phe Pro
      35             40             45
Ser Ser Gln Asp Tyr Arg Arg Leu Ala Pro Cys Pro Ala Thr Phe Phe
      50             55             60
Val Phe Leu Val Glu Thr Gly Phe His His Val Gly Gln Ala Gly Leu
      65             70             75             80
Lys Leu Leu Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser Gln Arg Ala
      85             90             95
Gly Ile Thr Gly Val Ser His His Gly Gln Pro Ser Phe Ile Phe Met
      100            105            110
Glu Lys Asn Ile Ser Leu Tyr Glu Tyr Thr Thr Phe Cys Leu Ser Ile
      115            120            125
Tyr Pro Leu Ile Gly Cys Phe Tyr Phe Phe Leu Ala Ile Met Asn Asn
      130            135            140
Ile Ala Val Asn Ile Cys Val Gln Gly Phe Ser Gly His Lys Phe Leu
      145            150            155            160
Phe Phe Leu Gly Ile Tyr Leu Gly Val Glu Leu Leu Gly His Ile Val
      165            170            175
Ile Leu Phe Asn Phe Leu Lys Asn Phe Pro Thr Val Leu His Gly Gly
      180            185            190
Cys Ala Ile Val Tyr Ser Tyr Gln Gln Cys Met Lys Leu Gln Ile Ser
      195            200            205
Pro His Pro Glu Asn Pro Phe Ile Ile Phe Cys Phe Ser Phe
      210            215            220

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<210> 3164

<211> 477

<212> PRT

<213> Homo sapiens

<400> 3164

```

Met Tyr Asp Ala Glu Arg Gly Trp Ser Leu Ser Phe Ala Gly Cys Gly
  1             5             10             15
Phe Leu Gly Phe Tyr His Val Gly Ala Thr Arg Cys Leu Ser Glu His
      20             25             30
Ala Pro His Leu Leu Arg Asp Ala Arg Met Leu Phe Gly Ala Ser Ala
      35             40             45
Gly Ala Leu His Cys Val Gly Val Leu Ser Glu Gln Thr Leu Gln Val
      50             55             60
Leu Ser Asp Leu Val Arg Lys Ala Arg Ser Arg Asn Ile Gly Ile Phe
      65             70             75             80
His Pro Ser Phe Asn Leu Ser Lys Phe Leu Arg Gln Gly Leu Cys Lys
      85             90             95
Cys Leu Pro Ala Asn Val His Gln Leu Ile Ser Gly Lys Ile Cys Ile
      100            105            110
Ser Leu Thr Arg Val Ser Asp Gly Glu Asn Val Leu Val Ser Asp Phe
      115            120            125
Arg Ser Lys Asp Glu Val Val Asp Ala Leu Val Cys Ser Cys Phe Met
      130            135            140
Pro Phe Tyr Ser Gly Leu Ile Pro Pro Ser Phe Arg Gly Val Arg Tyr
      145            150            155            160
Val Asp Gly Gly Val Ser Asp Asn Val Pro Phe Ile Asp Ala Lys Thr
      165            170            175
Thr Ile Thr Val Ser Pro Phe Tyr Gly Glu Tyr Asp Ile Cys Pro Lys
      180            185            190
Val Lys Ser Thr Asn Phe Leu His Val Asp Ile Thr Lys Leu Ser Leu
      195            200            205
Arg Leu Cys Thr Gly Asn Leu Tyr Leu Leu Ser Arg Ala Phe Val Pro
      210            215            220
Pro Asp Leu Lys Val Leu Gly Glu Ile Cys Leu Arg Gly Tyr Leu Asp
      225            230            235            240
Ala Phe Arg Phe Leu Glu Glu Lys Gly Ile Cys Asn Arg Pro Gln Pro

```

| | | | |
|---|-----|-----|-----|
| | 245 | 250 | 255 |
| Gly Leu Lys Ser Ser Ser Glu Gly Met Asp Pro Glu Val Ala Met Pro | | | |
| | 260 | 265 | 270 |
| Ser Trp Ala Asn Met Ser Leu Asp Ser Ser Pro Glu Ser Ala Ala Leu | | | |
| | 275 | 280 | 285 |
| Ala Val Arg Leu Glu Gly Asp Glu Leu Leu Asp His Leu Arg Leu Ser | | | |
| | 290 | 295 | 300 |
| Ile Leu Pro Trp Asp Glu Ser Ile Leu Asp Thr Leu Ser Pro Arg Leu | | | |
| 305 | 310 | 315 | 320 |
| Ala Thr Ala Leu Ser Glu Glu Met Lys Asp Lys Gly Gly Tyr Met Ser | | | |
| | 325 | 330 | 335 |
| Lys Ile Cys Asn Leu Leu Pro Ile Arg Ile Met Ser Tyr Val Met Leu | | | |
| | 340 | 345 | 350 |
| Pro Cys Thr Leu Pro Val Glu Ser Ala Ile Ala Ile Val Gln Arg Leu | | | |
| | 355 | 360 | 365 |
| Val Thr Trp Leu Pro Asp Met Pro Asp Asp Val Leu Trp Leu Gln Trp | | | |
| | 370 | 375 | 380 |
| Val Thr Ser Gln Val Phe Thr Arg Val Leu Met Cys Leu Leu Pro Ala | | | |
| 385 | 390 | 395 | 400 |
| Ser Arg Ser Gln Met Pro Val Ser Ser Gln Gln Ala Ser Pro Cys Thr | | | |
| | 405 | 410 | 415 |
| Pro Glu Gln Asp Trp Pro Cys Trp Thr Pro Cys Ser Pro Glu Gly Cys | | | |
| | 420 | 425 | 430 |
| Pro Ala Glu Thr Lys Ala Glu Ala Thr Pro Arg Ser Ile Leu Arg Ser | | | |
| | 435 | 440 | 445 |
| Ser Leu Asn Phe Phe Leu Gly Asn Lys Val Pro Ala Gly Ala Glu Gly | | | |
| | 450 | 455 | 460 |
| Leu Ser Thr Phe Pro Ser Phe Ser Leu Glu Lys Ser Leu | | | |
| 465 | 470 | 475 | |

<210> 3165

<211> 182

<212> PRT

<213> Homo sapiens

<400> 3165

Met Arg Arg Cys Arg Arg Cys Ala Arg Trp Pro His Arg Cys Pro Gly
 1 5 10 15
 Pro Gln Ser Gly Pro Arg Ser His Phe Ser Pro Trp Pro Arg Thr Leu
 20 25 30
 Gly Pro Ala Pro Ala Leu Cys Val Arg Thr Pro Leu Arg Pro Gly Pro
 35 40 45
 Ser Ser Ala Leu Gly Pro Leu Ser Ala Cys Pro Ser Val Pro Asp Tyr
 50 55 60
 Thr Ala Ser Pro Pro Ala Gly Asp Ser Ala Arg Ser Ile Val Ala Ala
 65 70 75 80
 Ser Arg Ala Ala Gly Ser Gly Ser Thr Pro Gly Ala Gly Ser Lys Asp
 85 90 95
 Cys Ser Pro Pro Pro His Ser His Ser Ala Ala Ala Ala Gly Glu Ser
 100 105 110
 Gly Asp Ile Gly Pro Gly Ser Gly Ala Val Glu Ala Pro Gly Arg Gly
 115 120 125
 Ala Arg Arg Pro Thr Arg Gln Arg Glu Asp Gly Gly Gly Ala Val Gly
 130 135 140
 Cys Phe Gly Val Ser Arg His Arg Gly Arg Glu Ala Gln Met Ser His
 145 150 155 160
 Ser Ser His Cys Gly Ser Arg Ser Cys Ser Ala Ala Ala Ala Arg Pro
 165 170 175
 Ser Leu Leu Gln Leu Ala
 180

<210> 3166

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3166

Met Asn Val Val Ala Gln Arg Arg Gly Glu Gly Trp Gly Glu Met Arg
 1 5 10 15
 Asn Arg Lys Lys Ile Pro Arg Glu Ile Lys Arg Pro Arg Gly Ala Glu

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Pro Gly Ser Arg Trp Ser Arg Gln Met Glu Gln Gln Arg Gln Arg Thr | | |
| 35 | 40 | 45 |
| Glu Pro Gln Ser Gly His Thr Ala Arg Pro Gly Ser Gln Ala Leu Trp | | |
| 50 | 55 | 60 |
| Val Trp Trp Glu Gln Met Leu Val Trp Glu Gln Gln Leu Met Ala Pro | | |
| 65 | 70 | 75 |
| Ser Thr Cys Ile Leu Val Asp Ser Arg Pro Ser Thr Ala Ser Ser Ala | | |
| 85 | 90 | 95 |
| Ala Gly Leu Ser Leu Glu Glu Gln Pro Trp Ser Arg Glu Ala Asp Glu | | |
| 100 | 105 | 110 |
| Trp Gln Pro Cys Pro Val Gly Ala Pro Val Leu Leu Leu His Pro Pro | | |
| 115 | 120 | 125 |
| Pro Gly Ser Ala His Leu Leu Arg Leu Pro Pro Arg Ala Ser | | |
| 130 | 135 | 140 |

<210> 3167

<211> 158

<212> PRT

<213> Homo sapiens

<400> 3167

| | | |
|---|----|----|
| Met Ile Ala Gln Arg Arg Asp Ala Met Ala His Arg Ile Leu Ser Ala | | |
| 1 | 5 | 10 |
| Arg Leu His Lys Ile Lys Gly Leu Lys Asn Glu Leu Ala Asp Met His | | |
| 20 | 25 | 30 |
| His Lys Leu Glu Ala Ile Leu Thr Glu Asn Gln Phe Leu Lys Gln Leu | | |
| 35 | 40 | 45 |
| Gln Leu Arg His Leu Lys Ala Ile Gly Lys Tyr Glu Asn Ser Gln Asn | | |
| 50 | 55 | 60 |
| Asn Leu Pro Gln Ile Met Ala Lys His Gln Asn Glu Val Lys Asn Leu | | |
| 65 | 70 | 75 |
| Arg Gln Leu Leu Arg Lys Ser Gln Glu Lys Glu Arg Thr Leu Ser Arg | | |
| 85 | 90 | 95 |
| Lys Leu Arg Glu Thr Asp Ser Gln Leu Leu Lys Thr Lys Asp Ile Leu | | |

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Gln Ala Leu Gln Lys Leu Ser Glu Asp Lys Asn Leu Ala Glu Arg Glu | | |
| 115 | 120 | 125 |
| Glu Leu Thr His Lys Leu Ser Ile Ile Thr Thr Lys Met Asp Ala Asn | | |
| 130 | 135 | 140 |
| Asp Lys Lys Ile Gln Val Cys Ile Ser Gly Ala Gln Thr Val | | |
| 145 | 150 | 155 |

<210> 3168

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3168

| | | | |
|---|-----|-----|-----|
| Met Gly Asn Lys Ala Lys Ile Ala Lys Cys Pro Leu Arg Thr Lys Thr | | | |
| 1 | 5 | 10 | 15 |
| Gly His Ile Leu Lys Ser Thr Gln Asp Thr Cys Ile Gly Ser Glu Lys | | | |
| 20 | 25 | 30 | |
| Leu Leu Gln Lys Lys Pro Val Gly Ser Glu Thr Ser Gln Ala Lys Gly | | | |
| 35 | 40 | 45 | |
| Glu Lys Asn Gly Met Thr Phe Ser Ser Thr Lys Asp Leu Cys Lys Gln | | | |
| 50 | 55 | 60 | |
| Cys Ile Asp Lys Asp Cys Leu His Ile Gln Lys Glu Ile Ser Pro Ala | | | |
| 65 | 70 | 75 | 80 |
| Thr Pro Asn Met Gln Lys Thr Arg Asn Thr Val Asn Thr Ser Leu Val | | | |
| 85 | 90 | 95 | |
| Gly Lys Gln Lys Pro His Lys Lys His Ile Thr Ala Glu Asn Met Lys | | | |
| 100 | 105 | 110 | |
| Ser Ser Leu Val Cys Leu Thr Gln Asp Gln Leu Gln Gln Ile Leu Met | | | |
| 115 | 120 | 125 | |
| Thr Val Asn Gln Gly Asn Arg Ser Leu Ser Leu Thr Glu Asn Gly Lys | | | |
| 130 | 135 | 140 | |
| Glu Ala Lys Ser Gln Tyr Ser Leu Tyr Leu Asn Ser Ile Ser Asn Gln | | | |
| 145 | 150 | 155 | 160 |
| Pro Lys Asp Glu Asn Ile Met Gly Leu Phe Lys Lys Thr Glu Met Val | | | |

165 170 175
 Ser Ser Val Pro Ala Glu Asn Lys Ser Val Leu Asn Glu His Gln Glu
 180 185 190
 Thr Ser Lys Gln
 195

<210> 3169

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3169

Met Ser Thr Arg Val Asn Cys Pro Leu Asn Cys Pro Asn Met Ala Ser
 1 5 10 15
 Tyr Ser Leu Met Glu Asn Pro Arg Gly Arg Val Tyr Pro His Phe Ser
 20 25 30
 Leu Asn Lys Lys Val Phe Ile Pro Lys Thr Gly Gly Gly Arg Gly Gly
 35 40 45
 Ser Met Thr Lys Ser Pro Ser Val Ala Gln Ala Gly Val Gln Gly Val
 50 55 60
 Ile Ser Ala His Cys Asn Leu Arg Leu Pro Gly Ser Gly Asp Ser Pro
 65 70 75 80
 Ala Ser Ala Ser Arg Glu Ala Gly Ile Ala Gly Ala His His Gln Pro
 85 90 95
 Gly Gln His Gly Lys Thr Pro Ser Leu Leu Lys Met Gln Thr Leu Ala
 100 105 110
 Gly His Gly Gly Thr Cys Leu
 115

<210> 3170

<211> 675

<212> PRT

<213> Homo sapiens

<400> 3170

Met Leu Leu Ala Pro Gln Gly Arg Ser Phe Ser Lys Lys Arg Met Gly
 1 5 10 15
 Leu Asn Arg Trp Lys Arg Phe Thr Arg Lys Pro Ser Pro Lys Pro Thr
 20 25 30
 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala
 35 40 45
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu
 50 55 60
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln
 65 70 75 80
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn
 85 90 95
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu
 100 105 110
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala
 115 120 125
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu
 130 135 140
 Glu Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu
 145 150 155 160
 Leu His Lys Asn Val Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg
 165 170 175
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp Pro Arg Leu Thr Met
 180 185 190
 Glu Met Arg His Lys Gln Val Lys Glu Asn Arg Leu Arg Arg Glu Lys
 195 200 205
 Glu Leu Glu Tyr Gln Arg Ile Glu Lys Thr Leu Lys Lys Ser Ala Phe
 210 215 220
 Leu Glu Ala Gln Cys Leu Val Gln Glu Glu Lys Lys Arg Lys Ala Leu
 225 230 235 240
 Glu Ala Lys Lys Glu Glu Glu Glu Ile Gln Arg Glu Met Val Lys Leu
 245 250 255
 Arg Arg Glu Ile Ile Glu Arg Arg Arg Thr Val Lys Ala Ala Trp Lys
 260 265 270
 Ile Glu Lys Lys Arg Gln Glu Glu Asn Ser Gln Asn Ser Ser Glu Lys

| | | |
|---|-----|-----|
| 275 | 280 | 285 |
| Val Met Phe Gln Ser Thr His Ile Leu Pro Asp Glu Glu Lys Met Val | | |
| 290 | 295 | 300 |
| Lys Glu Arg Lys Arg Lys Leu Lys Glu Val Leu Ile Gln Thr Phe Lys | | |
| 305 | 310 | 315 |
| Glu Asn Gln Gln Cys Gln Lys Arg Tyr Phe Ala Ala Trp His Lys Leu | | |
| 325 | 330 | 335 |
| Ile Leu Asp His Arg Ile Lys Leu Gly Lys Ala Gly Thr Leu Ser Asp | | |
| 340 | 345 | 350 |
| Trp Lys Ile Gln Leu Lys Val Leu Arg Ala Trp Arg Asp Tyr Thr Arg | | |
| 355 | 360 | 365 |
| Phe Gln Lys Leu Glu Arg Glu Thr Gln Ala Leu Glu Asn Asp Leu Arg | | |
| 370 | 375 | 380 |
| Glu Glu Asn Arg Lys Gln Gln Leu Ala Thr Glu Tyr Asn Arg Lys Gln | | |
| 385 | 390 | 395 |
| Val Leu Arg His Cys Phe Thr Glu Trp Gln His Trp His Gly Ala Glu | | |
| 405 | 410 | 415 |
| Leu Leu Lys Arg Glu Leu Ala Leu Thr Lys Glu Glu Thr Arg Lys Lys | | |
| 420 | 425 | 430 |
| Met Asp Ala Leu Leu Gln Ala Ala Ser Leu Gly Lys Leu Ser Ala Asn | | |
| 435 | 440 | 445 |
| Gly Leu Ser Gly Ile Ser Leu Pro Glu Glu Ala Thr Ala Met Val Gly | | |
| 450 | 455 | 460 |
| Pro Pro Val Lys Asn Gly Gln Glu Thr Ala Val Pro Pro Leu Trp Glu | | |
| 465 | 470 | 475 |
| Lys Pro Pro Leu Gly Ser Ser Gly Cys Met Leu Ser Pro Pro Leu Gly | | |
| 485 | 490 | 495 |
| Arg Thr Thr Thr Gly Asn Leu Gln Gly Ser Leu Gln Asn Val Ser Leu | | |
| 500 | 505 | 510 |
| Ser Ala Pro Gly Asn Lys Gln His Lys Thr Leu Gly Ala Glu Pro Ser | | |
| 515 | 520 | 525 |
| Gln Gln Pro Gly Ser Asn Glu Thr Leu Arg Thr Thr Ser Gln Lys Ala | | |
| 530 | 535 | 540 |
| Glu Pro Leu Cys Leu Gly His Phe His Asn Arg His Val Phe Gln Gln | | |
| 545 | 550 | 555 |
| Gln Leu Ile Glu Lys Gln Lys Lys Lys Leu Gln Glu Gln Gln Lys Thr | | |

565 570 575
 Ile Leu Glu Leu Lys Lys Asn Leu Gln Leu Ala Glu Ala Gln Trp Ala
 580 585 590
 Ala Glu His Ala Leu Ala Val Thr Glu Ala Gln Ser His Leu Leu Ser
 595 600 605
 Lys Pro Arg Glu Glu Glu Pro Arg Thr Cys Gln Met Leu Val Asn Ser
 610 615 620
 Pro Val Ala Ser Pro Gly Thr Glu Gly Arg Ser Asp Ser Arg Asn Ser
 625 630 635 640
 Leu Ser Gly Leu Arg Arg Lys Pro Lys Gln Leu Met Thr Pro His Pro
 645 650 655
 Ile Leu Lys Ala Met Glu Glu Arg Ala Ile Gln Arg Ala Glu Cys Arg
 660 665 670
 Arg Ile Leu
 675

<210> 3171

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3171

Met Gly Phe His His Val Gly Gln Ala Gly Leu Gly Leu Leu Thr Ser
 1 5 10 15
 Cys Ser Thr Arg Phe Gly Leu Pro Arg Phe Trp Asp Tyr Arg Cys Glu
 20 25 30
 Pro Pro Cys Thr Ala Gly Leu Thr Phe Gly Lys Ala Leu Ser Leu Trp
 35 40 45
 Thr Phe Ala Ser Leu Lys Arg Arg Trp Glu His Ile Met Thr Ala Cys
 50 55 60
 His His Cys Phe Ser Asp Tyr His Asn Ser Ile Met Leu Ser Arg Thr
 65 70 75 80
 Ser Gly Pro Val Phe Thr Thr Gly Lys Thr Tyr Phe Arg Leu Asp Ser
 85 90 95
 Leu Lys Arg Ser Asn Ala Leu Val Gly Cys Gly Glu Gly Lys Ile Arg

100 105 110
 Thr Leu Thr Leu Lys Asp Thr Ser Glu Ile Val Arg Ser Leu Gly Ser
 115 120 125
 Trp Ser Thr Arg Leu His Ala Leu Arg Pro Ser Val Val Phe Ser Glu
 130 135 140
 Gln Ala Leu Ser Thr Ser Ser Arg Lys Gln Gln Gln Lys Asn Thr Ser
 145 150 155 160
 Phe Leu Pro Cys Leu Leu Asp Met Lys Arg Gln Leu His Ser Thr Leu
 165 170 175
 His Tyr Val Leu His Val Ala Leu Ser Val Tyr Ala
 180 185

<210> 3172

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3172

Met Glu Lys Phe Ser Lys Ser Leu Pro Gly Pro Glu Ala Gln Leu Ala
 1 5 10 15
 Ser Pro Leu Thr Gly Thr Gly Cys Arg Thr Ser Pro His Leu Ala Arg
 20 25 30
 Ala Leu Pro Gln Pro Arg Gly Ser Ser Ser Gln Thr Ile Lys Arg Lys
 35 40 45
 Arg Gly Glu Ala Arg Lys Arg Arg Arg Ala Ala Ser Val Ala Lys Asp
 50 55 60
 Pro Thr Lys Arg Glu Gly Arg Ser Thr His Gly Thr Gln Pro Pro Ile
 65 70 75 80
 Lys Pro Ser Arg Cys Arg Asp Arg Ala His Pro Asp Pro Thr Pro Ala
 85 90 95
 Gly Gln Arg Cys Ala Gln Pro Gln Leu Leu Pro Ala Pro Leu Ser Ser
 100 105 110
 His Phe Pro Glu Ser Arg Gly Ser Arg Leu Arg Pro Gln Pro Ala Pro
 115 120 125
 Glu Lys Gly Pro His Ser Ala Ala Gly Gly

130

135

<210> 3173

<211> 221

<212> PRT

<213> Homo sapiens

<400> 3173

```

Met Ala Ala Ala Gly Pro Leu Cys Thr Glu Arg Val Ser Val Leu Ser
  1             5             10             15
Gln Pro Asn Ser Gly Val Glu Asp Pro Thr Pro Ala Gly Gly Arg Gly
      20             25             30
Gln Gly Arg Arg Arg Gly Arg Glu Glu Leu Glu Ser Ile Gly Ala Gly
      35             40             45
Pro Gly Ala Ser Val Arg Ile Leu Pro Ala Leu Arg Pro Gly Leu Gly
      50             55             60
Gly Val Trp Gly Ala Gly Ala Ala Ser Leu Val Phe Gln Ala Gly Pro
      65             70             75             80
Gly Ser Ser Trp Leu Gly Trp Pro Asp Leu Asp Leu Ala Leu Tyr Arg
      85             90             95
Gly Trp Ala Cys Arg Ser Glu Gly Thr Ala Asn Val Ala Phe Pro Gly
      100            105            110
Thr Ala Ser Pro Gly Phe Ser Arg Ala Arg Gln Thr Arg Asp Leu Arg
      115            120            125
Lys Pro Ala Leu Lys Thr Pro Ser His Thr Ala Ser Gln Leu Ala Ala
      130            135            140
Glu Ala Gly Asn Pro Ser Gly Gly Cys Pro Ser Met Arg Cys Gln Arg
      145            150            155            160
Arg Val Gly Ala Leu Val Pro Thr Trp Lys Gly Gly Trp Arg Asp Gly
      165            170            175
Trp Ser Gly Ser Gly Gly Arg Ala Lys Glu Arg Ile Leu Ala Phe Ser
      180            185            190
Phe Pro Ala Gly Gly Gly Ile Arg Gly Glu Arg Val Gln Ala Ala Ser
      195            200            205
Asn Thr Arg Ile Trp Glu Glu Pro Gly Ser Thr Pro Asn

```

210

215

220

<210> 3174

<211> 176

<212> PRT

<213> Homo sapiens

<400> 3174

```

Met Tyr Ala Cys Val Cys Asp Trp Leu Gly Phe Ser Tyr Arg Glu Glu
  1             5             10             15
Val Gln Trp Asp Val Asp Thr Ile Tyr Leu Thr Gln Asp Thr Arg Glu
             20             25             30
Leu Asn Leu Gln Asp Phe Ser His Leu Asp His Arg Asp Leu Ile Pro
             35             40             45
Ile Ile Ala Ala Leu Glu Tyr Asn Gln Trp Phe Thr Lys Leu Ser Ser
             50             55             60
Lys Asp Leu Lys Leu Ser Thr Asp Val Cys Glu Gln Ile Leu Arg Val
             65             70             75             80
Val Ser Arg Ser Asn Arg Leu Glu Glu Leu Val Leu Glu Asp Ala Gly
             85             90             95
Leu Arg Thr Asp Phe Ala Gln Lys Leu Ala Ser Ala Leu Ala His Asn
             100            105            110
Pro Asn Ser Gly Leu His Thr Ile Asn Leu Ala Gly Asn Pro Leu Glu
             115            120            125
Asp Arg Glu Thr Thr Thr Lys Ile Lys Arg Gln Asn Val Pro Thr Val
             130            135            140
Leu Gln Thr Tyr Leu Val Val Cys Pro Ser Asp Tyr Gln Pro Cys Pro
             145            150            155            160
Leu Pro Leu Gly Lys Asp Asn Tyr Tyr Ser Asp Phe Ser His Asp Gly
             165            170            175

```

<210> 3175

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3175

```

Met Arg Val Ser Ser Gly Val Ala Thr Gly Leu Leu Glu Asn Gln Arg
 1           5           10           15
Arg Arg Glu Gln Pro Arg Ser Gly Gly Arg Arg Pro Gly Pro Gly Pro
      20           25           30
Leu Leu Pro Gln Gln Ala Pro His Pro Arg Ile Ile Cys Ser Arg Ala
      35           40           45
Ala Pro Thr Ser Leu Ser Leu Pro His Pro Arg Ser Arg Phe Arg Arg
      50           55           60
Ser Gly His Ala Gly Ala Ser Ala Gly Cys Gly Arg Pro Ser Arg Gly
      65           70           75           80
Leu Gly Glu Gly Ser Gly Leu Lys Phe Thr Leu Ser Leu Arg Gly Leu
      85           90           95
Glu Ala Pro Arg Pro Pro Arg Thr Val Ser Ser Ala Ala Gly Cys Ala
      100          105          110
Leu Gly Gly Ser Ser Pro Ser Val Leu Pro Thr Gly Val Gly Arg Gly
      115          120          125

```

<210> 3176

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3176

```

Met Ile Thr Leu Ala Ser Pro Leu Cys Pro Ile Ile Ser Gln Val Pro
 1           5           10           15
Ile Leu Lys Arg Lys Arg Lys Glu Gly Gly Asn Glu Gly Arg Glu Gly
      20           25           30
Gly Arg Lys Glu Gly Arg Met Glu Gly Arg Lys Glu Gly Lys Gly Glu
      35           40           45
Arg Glu Gly Arg Arg Glu Gly Arg Lys Leu Ser Asn Pro Ser Ser Val
      50           55           60
Gln Ser Arg Arg Arg Phe His Gly Thr Pro Arg Ile Asp Arg Phe Leu

```

65 70 75 80
 Leu Leu Ser Trp Trp Met Glu Met Pro Thr Ser Ser Cys Glu Ser Leu
 85 90 95
 Pro Glu Gly Leu Ile Val Ala Pro Ser Ser Val Gly Leu Thr Ser Leu
 100 105 110
 Phe Ser Leu Glu Gly Leu Ala Ile Glu Arg Gln Val Met Cys Cys Phe
 115 120 125
 Arg Lys Gln Asn Trp Asp Met Ser
 130 135

<210> 3177

<211> 303

<212> PRT

<213> Homo sapiens

<400> 3177

Met Ala Leu Asp Phe Leu Ala Gly Cys Ala Gly Gly Val Ala Gly Val
 1 5 10 15
 Leu Val Gly His Pro Phe Asp Thr Val Lys Val Arg Leu Gln Val Gln
 20 25 30
 Ser Val Glu Lys Pro Gln Tyr Arg Gly Thr Leu His Cys Phe Lys Ser
 35 40 45
 Ile Ile Lys Gln Glu Ser Val Leu Gly Leu Tyr Lys Gly Leu Gly Ser
 50 55 60
 Pro Leu Met Gly Leu Thr Phe Ile Asn Ala Leu Val Phe Gly Val Gln
 65 70 75 80
 Gly Asn Thr Leu Arg Ala Leu Gly His Asp Ser Pro Leu Asn Gln Phe
 85 90 95
 Leu Ala Gly Ala Ala Ala Gly Ala Ile Gln Cys Val Ile Cys Cys Pro
 100 105 110
 Met Glu Leu Ala Lys Thr Arg Leu Gln Leu Gln Asp Ala Gly Pro Ala
 115 120 125
 Arg Thr Tyr Lys Gly Ser Leu Asp Cys Leu Ala Gln Ile Tyr Gly His
 130 135 140
 Glu Gly Leu Arg Gly Val Asn Arg Gly Met Val Ser Thr Leu Leu Arg

145 150 155 160
 Glu Thr Pro Ser Phe Gly Val Tyr Phe Leu Thr Tyr Asp Ala Leu Thr
 165 170 175
 Arg Ala Leu Gly Cys Glu Pro Gly Asp Arg Leu Leu Val Pro Lys Leu
 180 185 190
 Leu Leu Ala Gly Gly Thr Ser Gly Ile Val Ser Trp Leu Ser Thr Tyr
 195 200 205
 Pro Val Asp Val Val Lys Ser Arg Leu Gln Ala Asp Gly Leu Arg Gly
 210 215 220

 Ala Pro Arg Tyr Arg Gly Ile Leu Asp Cys Val His Gln Ser Tyr Arg
 225 230 235 240
 Ala Glu Gly Trp Arg Val Phe Thr Arg Gly Leu Ala Ser Thr Leu Leu
 245 250 255
 Arg Ala Phe Pro Val Asn Ala Ala Thr Phe Ala Thr Val Thr Val Val
 260 265 270
 Leu Thr Tyr Ala Arg Gly Glu Glu Ala Gly Pro Glu Gly Glu Ala Val
 275 280 285
 Pro Ala Ala Pro Ala Gly Pro Ala Leu Ala Gln Pro Ser Ser Leu
 290 295 300

<210> 3178

<211> 694

<212> PRT

<213> Homo sapiens

<400> 3178

Met Ala Leu Gly Lys Leu Arg Pro Pro Thr Pro Pro Met Val Ile Leu
 1 5 10 15
 Glu Pro Tyr Val Leu Ser Glu Leu Pro Pro Ile Ser His Glu Tyr Tyr
 20 25 30
 Asp Pro Ala Glu Phe Met Glu Gly Gly Pro Gln Glu Ala Asp Arg Leu
 35 40 45
 Asp Glu Leu Glu Tyr Glu Glu Val Glu Leu Tyr Lys Ser Ser His Arg
 50 55 60

Asp Lys Leu Gly Leu Met Val Cys Tyr Arg Thr Asp Asp Glu Glu Asp
 65 70 75 80
 Leu Gly Ile Tyr Val Gly Glu Val Asn Pro Asn Ser Ile Ala Ala Lys
 85 90 95
 Asp Gly Arg Ile Arg Glu Gly Asp Arg Ile Ile Gln Ile Asn Gly Val
 100 105 110
 Asp Val Gln Asn Arg Glu Glu Ala Val Ala Ile Leu Ser Gln Glu Glu
 115 120 125
 Asn Thr Asn Ile Ser Leu Leu Val Ala Arg Pro Glu Ser Gln Leu Ala
 130 135 140
 Lys Arg Trp Lys Asp Ser Asp Arg Asp Asp Phe Leu Asp Asp Phe Gly
 145 150 155 160
 Ser Glu Asn Glu Gly Glu Leu Arg Ala Arg Lys Leu Lys Ser Pro Pro
 165 170 175
 Ala Gln Gln Pro Gly Asn Glu Glu Glu Lys Gly Ala Pro Asp Ala Gly
 180 185 190
 Pro Gly Leu Ser Asn Ser Gln Glu Leu Asp Ser Gly Val Gly Arg Thr
 195 200 205
 Asp Glu Ser Thr Arg Asn Glu Glu Ser Ser Glu His Asp Leu Leu Gly
 210 215 220
 Asp Glu Pro Pro Ser Ser Thr Asn Thr Pro Gly Ser Leu Arg Lys Phe
 225 230 235 240
 Gly Leu Gln Gly Asp Ala Leu Gln Ser Arg Asp Phe His Phe Ser Met
 245 250 255
 Asp Ser Leu Leu Ala Glu Gly Ala Gly Leu Gly Gly Gly Asp Val Pro
 260 265 270
 Gly Leu Thr Asp Glu Glu Tyr Glu Arg Tyr Arg Glu Leu Leu Glu Ile
 275 280 285
 Lys Cys His Leu Glu Asn Gly Asn Gln Leu Gly Leu Leu Phe Pro Arg
 290 295 300
 Ala Ser Gly Gly Asn Ser Ala Leu Asp Val Asn Arg Asn Glu Ser Leu
 305 310 315 320
 Gly His Glu Met Ala Met Leu Glu Glu Glu Leu Arg His Leu Glu Phe
 325 330 335
 Lys Cys Arg Asn Ile Leu Arg Ala Gln Lys Met Gln Gln Leu Arg Glu
 340 345 350

Arg Cys Met Lys Ala Trp Leu Leu Glu Glu Glu Ser Leu Tyr Asp Leu
 355 360 365
 Ala Ala Ser Glu Pro Lys Lys His Glu Leu Ser Asp Ile Ser Glu Leu
 370 375 380
 Pro Glu Lys Ser Asp Lys Asp Ser Thr Ser Thr Tyr Asn Thr Gly Glu
 385 390 395 400
 Ser Cys Arg Ser Thr Pro Leu Leu Val Glu Pro Leu Pro Glu Ser Pro
 405 410 415
 Leu Arg Arg Ala Thr Ala Gly Asn Ser Asn Leu Asn Arg Thr Pro Pro
 420 425 430
 Gly Pro Ala Val Ala Thr Pro Ala Lys Ala Ala Pro Pro Pro Gly Ser
 435 440 445
 Pro Ala Lys Phe Arg Ser Leu Ser Arg Asp Pro Glu Ala Gly Arg Arg
 450 455 460
 Gln His Ala Glu Glu Arg Gly Arg Arg Asn Pro Lys Thr Gly Leu Thr
 465 470 475 480
 Leu Glu Arg Val Gly Pro Glu Ser Ser Pro Tyr Leu Ser Arg Arg His
 485 490 495
 Arg Gly Gln Gly Gln Glu Gly Glu His Tyr His Ser Cys Val Gln Leu
 500 505 510
 Ala Pro Thr Arg Gly Leu Glu Glu Leu Gly His Gly Pro Leu Ser Leu
 515 520 525
 Ala Gly Gly Pro Arg Val Gly Gly Val Ala Ala Ala Ala Thr Glu Ala
 530 535 540
 Pro Arg Met Glu Trp Lys Val Lys Val Arg Ser Asp Gly Thr Arg Tyr
 545 550 555 560
 Val Ala Lys Arg Pro Val Arg Asp Arg Leu Leu Lys Ala Arg Ala Leu
 565 570 575
 Lys Ile Arg Glu Glu Arg Ser Gly Met Thr Thr Asp Asp Asp Ala Val
 580 585 590
 Ser Glu Met Lys Met Gly Arg Tyr Trp Ser Lys Glu Glu Arg Lys Gln
 595 600 605
 His Leu Ile Arg Ala Arg Glu Gln Arg Lys Arg Arg Glu Phe Met Met
 610 615 620
 Gln Ser Arg Leu Glu Cys Leu Arg Glu Gln Gln Asn Gly Asp Ser Lys
 625 630 635 640

Pro Glu Leu Asn Ile Ile Ala Leu Ser His Arg Lys Thr Met Lys Lys
 645 650 655
 Arg Asn Lys Lys Ile Leu Asp Asn Trp Ile Thr Ile Gln Glu Met Leu
 660 665 670
 Ala His Gly Ala Arg Ser Ala Asp Gly Lys Arg Val Tyr Asn Pro Leu
 675 680 685
 Leu Ser Val Thr Thr Val
 690

<210> 3179

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3179

Met Arg Lys Asn Phe Gly Val Arg Ala Glu Leu Cys Glu Gly Leu Leu
 1 5 10 15
 Gly Trp Gly Ile Ser Ser Tyr Gly Pro His Ala Ile Tyr Leu Leu Leu
 20 25 30
 Glu Arg Gly Asp Phe Glu Trp Val Gly Met Asp Arg Cys Ser Ser Arg
 35 40 45
 Lys Pro Cys Trp Leu Met Gly Thr Thr Ser Val Tyr Tyr Cys Asp Ser
 50 55 60
 Leu Cys Lys Leu Pro Met Trp Pro Arg Thr Pro Leu Leu Pro Gly His
 65 70 75 80
 Phe Leu Pro Pro His Cys Thr Gly Leu Asn His Ser Ala Cys Cys Cys
 85 90 95
 Cys Thr Met Leu Gly Cys Gly Arg Ile Gly Lys Gly Phe Cys
 100 105 110

<210> 3180

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3180

Met Glu Phe Gln Thr Leu Leu Leu Gly Thr Glu Gln Asn Phe Glu Asp
 1 5 10 15
 Ala Leu Ile Leu Ser Ser His Glu Gly Ser Val Gln Glu Gln Val Thr
 20 25 30
 Lys Trp Arg Pro Glu Thr Lys Arg Thr Asn Glu Leu Ser Tyr Arg Asp
 35 40 45
 Leu Leu Ala Leu Leu Pro Leu Phe Thr Thr Arg Arg Gln Thr Ser Leu
 50 55 60
 Ile Phe Lys Lys Leu Leu Phe Asp Leu Ser Glu Ser Gln Pro Arg Asn
 65 70 75 80
 His Gly Cys Met Ile Phe Asp Leu Asp Phe Glu Asp Ser Phe Tyr Lys
 85 90 95
 Glu Lys Ser Glu Gln Trp Pro Arg Arg
 100 105

<210> 3181

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3181

Met Ser Ser Pro His Lys Asn Ser Val Pro Ser Ser Leu Asn Glu Tyr
 1 5 10 15
 Glu Val Leu Pro Asn Gly Cys Glu Ala His Trp Glu Val Val Glu Arg
 20 25 30
 Ile Leu Phe Ile Tyr Ala Lys Leu Asn Pro Gly Ile Ala Tyr Val Gln
 35 40 45
 Gly Met Asn Glu Ile Val Gly Pro Leu Tyr Tyr Thr Phe Ala Thr Asp
 50 55 60
 Pro Asn Ser Glu Trp Lys Glu His Ala Glu Ala Asp Thr Phe Phe Cys
 65 70 75 80
 Phe Thr Asn Leu Met Ala Glu Ile Arg Asp Asn Phe Ile Lys Ser Leu

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Asp Asp Ser Gln Cys Gly Ile Thr Tyr Lys Met Glu Lys Val Tyr Ser | | | |
| 100 | 105 | 110 | |
| Thr Leu Lys Asp Lys Asp Val Glu Leu Tyr Leu Lys Leu Gln Glu Gln | | | |
| 115 | 120 | 125 | |
| Asn Ile Lys Pro Gln Phe Phe Ala Phe Arg Trp Leu Thr Leu Leu Leu | | | |
| 130 | 135 | 140 | |
| Ser Gln Glu Phe Leu Leu Pro Asp Val Ile Arg Ile Trp Asp Ser Leu | | | |
| 145 | 150 | 155 | 160 |
| Phe Ala Asp Asp Asn Arg Phe Asp Phe Leu Leu Leu Val Cys Cys Ala | | | |
| 165 | 170 | 175 | |
| Met Leu Met Leu Ile Arg Glu Gln Leu Leu Glu Gly Asp Phe Thr Val | | | |
| 180 | 185 | 190 | |
| Asn Met Arg Leu Leu Gln Asp Tyr Pro Ile Thr Asp Val Cys Gln Ile | | | |
| 195 | 200 | 205 | |
| Leu Gln Lys Ala Lys Glu Leu Gln Asp Ser Lys | | | |
| 210 | 215 | | |

<210> 3182

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3182

| | | | |
|---|----|----|----|
| Met Glu Arg Val Ile Ile Cys Asp Pro Gly Ser Leu Leu Tyr Asn Tyr | | | |
| 1 | 5 | 10 | 15 |
| Gln Ala Asp Leu Glu Gln Ile Thr Leu Leu Ser Leu Val Ser Phe Val | | | |
| 20 | 25 | 30 | |
| Val Val Leu Phe Leu Phe Leu Arg Trp Ser Phe Ala Leu Val Ala Gln | | | |
| 35 | 40 | 45 | |
| Ala Gly Val Gln Leu His Asp Leu Ser Ser Pro Gln Pro Pro Pro Pro | | | |
| 50 | 55 | 60 | |
| Arg Phe Lys Gln Phe Ser Cys Pro Ser Leu Pro Ser Ser Trp Asp Tyr | | | |
| 65 | 70 | 75 | 80 |
| Arg His Ala Pro Pro His Pro Ala Asn Ser Val Phe Leu Val Glu Thr | | | |

| | | | | | |
|---|-----|--|-----|--|-----|
| | 85 | | 90 | | 95 |
| Gly Phe Leu His Val Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Asp | | | | | |
| | 100 | | 105 | | 110 |
| Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser | | | | | |
| | 115 | | 120 | | 125 |
| His His Ala Arg Pro Ser Pro Val Ser Leu | | | | | |
| | 130 | | 135 | | |

<210> 3183

<211> 838

<212> PRT

<213> Homo sapiens

<400> 3183

| | | | |
|---|-----|-----|-----|
| Met Thr Gly Ala Glu Ile Glu Pro Ser Ala Gln Ala Lys Pro Glu Lys | | | |
| 1 | 5 | 10 | 15 |
| Lys Ala Gly Glu Glu Val Ile Ala Gly Pro Glu Arg Glu Asn Asp Val | | | |
| | 20 | 25 | 30 |
| Pro Leu Val Val Arg Pro Lys Val Arg Thr Gln Ala Thr Thr Gly Ala | | | |
| | 35 | 40 | 45 |
| Arg Pro Lys Thr Glu Thr Lys Ser Val Pro Ala Ala Arg Pro Lys Thr | | | |
| | 50 | 55 | 60 |
| Glu Ala Gln Ala Met Ser Gly Ala Arg Pro Lys Thr Glu Val Gln Val | | | |
| | 65 | 70 | 75 |
| Met Gly Gly Ala Arg Pro Lys Thr Glu Ala Gln Arg Ile Thr Gly Ala | | | |
| | 85 | 90 | 95 |
| Arg Pro Lys Thr Asp Ala Arg Ala Val Gly Gly Ala Arg Ser Lys Thr | | | |
| | 100 | 105 | 110 |
| Asp Ala Lys Ala Ile Pro Gly Ala Arg Pro Lys Asp Glu Ala Gln Ala | | | |
| | 115 | 120 | 125 |
| Trp Ala Gln Ser Glu Phe Gly Thr Glu Ala Val Ser Gln Ala Glu Gly | | | |
| | 130 | 135 | 140 |
| Val Ser Gln Thr Asn Ala Val Ala Trp Pro Leu Ala Thr Ala Glu Ser | | | |
| | 145 | 150 | 155 |
| Gly Ser Val Thr Lys Ser Lys Gly Leu Ser Met Asp Arg Glu Leu Val | | | |

| | | | |
|---|-----|-----|-----|
| | 165 | 170 | 175 |
| Asn Val Asp Ala Glu Thr Phe Pro Gly Thr Gln Gly Gln Lys Gly Ile | | | |
| | 180 | 185 | 190 |
| Gln Pro Trp Phe Gly Pro Gly Glu Glu Thr Asn Met Gly Ser Trp Cys | | | |
| | 195 | 200 | 205 |
| Tyr Ser Arg Pro Arg Ala Arg Glu Glu Ala Ser Asn Glu Ser Gly Phe | | | |
| | 210 | 215 | 220 |
| Trp Ser Ala Asp Glu Thr Ser Thr Ala Ser Ser Phe Trp Thr Gly Glu | | | |
| 225 | 230 | 235 | 240 |
| Glu Thr Ser Val Arg Ser Trp Pro Arg Glu Glu Ser Asn Thr Arg Ser | | | |
| | 245 | 250 | 255 |
| Arg His Arg Ala Lys His Gln Thr Asn Pro Arg Ser Arg Pro Arg Ser | | | |
| | 260 | 265 | 270 |
| Lys Gln Glu Ala Tyr Val Asp Ser Trp Ser Gly Ser Glu Asp Glu Ala | | | |
| | 275 | 280 | 285 |
| Ser Asn Pro Phe Ser Phe Trp Val Gly Glu Asn Thr Asn Asn Leu Phe | | | |
| | 290 | 295 | 300 |
| Arg Pro Arg Val Arg Glu Glu Ala Asn Ile Arg Ser Lys Leu Arg Thr | | | |
| 305 | 310 | 315 | 320 |
| Asn Arg Glu Asp Cys Phe Glu Ser Glu Ser Glu Asp Glu Phe Tyr Lys | | | |
| | 325 | 330 | 335 |
| Gln Ser Trp Val Leu Pro Gly Glu Glu Ala Asn Ser Arg Phe Arg His | | | |
| | 340 | 345 | 350 |
| Arg Asp Lys Glu Asp Pro Asn Thr Ala Leu Lys Leu Arg Ala Gln Lys | | | |
| | 355 | 360 | 365 |
| Asp Val Asp Ser Asp Arg Val Lys Gln Glu Pro Arg Phe Glu Glu Glu | | | |
| | 370 | 375 | 380 |
| Val Ile Ile Gly Ser Trp Phe Trp Ala Glu Lys Glu Ala Ser Leu Glu | | | |
| 385 | 390 | 395 | 400 |
| Gly Gly Ala Ser Ala Ile Cys Glu Ser Glu Pro Gly Thr Glu Glu Gly | | | |
| | 405 | 410 | 415 |
| Ala Ile Gly Gly Ser Ala Tyr Trp Ala Glu Glu Lys Ser Ser Leu Gly | | | |
| | 420 | 425 | 430 |
| Ala Val Ala Arg Glu Glu Ala Lys Pro Glu Ser Glu Glu Glu Ala Ile | | | |
| | 435 | 440 | 445 |
| Phe Gly Ser Trp Phe Trp Asp Arg Asp Glu Ala Cys Phe Asp Leu Asn | | | |

| | | |
|---|-----|-----|
| 450 | 455 | 460 |
| Pro Cys Pro Val Tyr Lys Val Ser Asp Arg Phe Arg Asp Ala Ala Glu | | |
| 465 | 470 | 475 |
| Glu Leu Asn Ala Ser Ser Arg Pro Gln Thr Trp Asp Glu Val Thr Val | | 480 |
| 485 | 490 | 495 |
| Glu Phe Lys Pro Gly Leu Phe His Gly Val Gly Phe Arg Ser Thr Ser | | |
| 500 | 505 | 510 |
| Pro Phe Gly Ile Pro Glu Glu Ala Ser Glu Met Leu Glu Ala Lys Pro | | |
| 515 | 520 | 525 |
| Lys Asn Leu Glu Leu Ser Pro Glu Gly Glu Glu Gln Glu Ser Leu Leu | | |
| 530 | 535 | 540 |
| Gln Pro Asp Gln Pro Ser Pro Glu Phe Thr Phe Gln Tyr Asp Pro Ser | | |
| 545 | 550 | 555 |
| Tyr Arg Ser Val Arg Glu Ile Arg Glu His Leu Arg Ala Arg Glu Ser | | 560 |
| 565 | 570 | 575 |
| Ala Glu Ser Glu Ser Trp Ser Cys Ser Cys Ile Gln Cys Glu Leu Lys | | |
| 580 | 585 | 590 |
| Ile Gly Ser Glu Glu Phe Glu Glu Phe Leu Leu Leu Met Asp Lys Ile | | |
| 595 | 600 | 605 |
| Arg Asp Pro Phe Ile His Glu Ile Ser Lys Ile Ala Met Gly Met Arg | | |
| 610 | 615 | 620 |
| Ser Ala Ser Gln Phe Thr Arg Asp Phe Ile Arg Asp Ser Gly Val Val | | |
| 625 | 630 | 635 |
| Ser Leu Ile Gly Thr Leu Leu Asn Tyr Pro Ser Ser Arg Val Arg Thr | | 640 |
| 645 | 650 | 655 |
| Ser Phe Leu Glu Asn Met Ile His Met Ala Pro Pro Tyr Pro Asn Leu | | |
| 660 | 665 | 670 |
| Asn Met Ile Glu Thr Phe Ile Cys Gln Val Cys Glu Glu Thr Leu Ala | | |
| 675 | 680 | 685 |
| His Ser Val Asp Ser Leu Glu Gln Leu Thr Gly Ile Arg Met Leu Arg | | |
| 690 | 695 | 700 |
| His Leu Thr Met Thr Ile Asp Tyr His Thr Leu Ile Ala Asn Tyr Met | | |
| 705 | 710 | 715 |
| Ser Gly Phe Leu Ser Leu Leu Thr Thr Ala Asn Ala Arg Thr Lys Phe | | 720 |
| 725 | 730 | 735 |
| His Val Leu Lys Met Leu Leu Asn Leu Ser Glu Asn Pro Ala Val Ala | | |

740 745 750
 Lys Lys Leu Phe Ser Ala Lys Ala Leu Ser Ile Phe Val Gly Leu Phe
 755 760 765
 Asn Ile Glu Glu Thr Asn Asp Asn Ile Gln Ile Val Ile Lys Met Phe
 770 775 780
 Gln Asn Ile Ser Asn Ile Ile Lys Ser Gly Lys Met Ser Leu Ile Asp
 785 790 795 800
 Asp Asp Phe Ser Leu Glu Pro Leu Ile Ser Ala Phe Arg Glu Phe Glu
 805 810 815
 Glu Leu Ala Lys Gln Leu Gln Ala Gln Ile Asp Asn Gln Asn Asp Pro
 820 825 830
 Glu Val Gly Gln Gln Ser
 835

<210> 3184

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3184

Met Lys Gln Thr Arg Ser Ile Gln Lys Leu Pro Ala Asn Lys Lys Cys
 1 5 10 15
 Gln Ile Ser Val His His Lys Ser Lys Tyr Pro Trp Val Ser Ile Asn
 20 25 30
 Phe Asn Lys Gln Asn Ile Phe Gly Ser Val Leu Phe Asp Met Asp Leu
 35 40 45
 Gln Arg Ser Leu Pro Asn His Phe Phe Leu Ser Leu Cys Glu Met Ser
 50 55 60
 Val Lys Glu Lys Ile Gly Glu Trp Trp Ser His Tyr Trp Ile Ile Ser
 65 70 75 80
 Ile Ile Leu Tyr Lys Lys Asp Lys Leu Phe Asp Ile Gln Asp Met Tyr
 85 90 95
 Ser Ala Gln Arg His Gln Phe Gly Gly Glu Leu Met Thr Leu Ser Pro
 100 105 110

Ile Phe

<210> 3185

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3185

```

Met Leu Arg Gln Val Leu Arg Arg Gly Leu Gln Ser Phe Cys His Arg
  1             5             10             15
Leu Gly Leu Cys Val Ser Arg His Pro Val Phe Phe Leu Thr Val Pro
             20             25             30
Ala Val Leu Thr Ile Thr Phe Gly Leu Ser Ala Leu Asn Arg Phe Gln
             35             40             45
Pro Glu Gly Asp Leu Glu Arg Leu Val Ala Pro Ser His Ser Leu Ala
             50             55             60
Lys Ile Glu Arg Ser Leu Ala Ser Ser Leu Phe Pro Leu Asp Gln Ser
             65             70             75             80
Lys Ser Gln Leu Tyr Ser Asp Leu His Thr Pro Gly Arg Tyr Gly Arg
             85             90             95
Val Ile Leu Leu Ser Pro Thr Gly Asp Asn Ile Leu Leu Gln Ala Glu
             100            105            110
Gly Ile Leu Gln Thr His Arg Ala Val Leu Glu Met Lys Asp Gly Arg
             115            120            125
Asn Ser Phe Ile Gly His Gln Leu Gly Gly Val Val Glu Val Pro Asn
             130            135            140
Ser Lys Asp Gln Arg Val Lys Ser Ala Arg Ala Ile Gln Ile Thr Tyr
             145            150            155            160
Tyr Leu Gln Thr Tyr Gly Ser Ala Thr Gln Asp Leu Ile Gly Glu Lys
             165            170            175
Trp Glu Asn Glu Phe Cys Lys Leu Ile Arg Lys Leu Gln Glu Glu His
             180            185            190
Gln Glu Leu Gln Leu Tyr Ser Leu Ala Ser Phe Ser Leu Trp Arg Asp
             195            200            205

```

Phe His Lys Thr Ser Ile Leu Ala Arg Ser Lys Val Leu Val Ser Leu
 210 215 220
 Val Leu Ile Leu Thr Thr Ala Thr Leu Ser Ser Ser Met Lys Asp Cys
 225 230 235 240
 Leu Arg Ser Lys Pro Phe Leu Gly Leu Leu Gly Val Leu Thr Val Cys
 245 250 255
 Ile Ser Ile Ile Thr Ala Ala Gly Ile Phe Phe Ile Thr Asp Gly Lys
 260 265 270
 Tyr Asn Ser Thr Leu Leu Gly Ile Pro Phe Phe Ala Met Gly Ile Ser
 275 280 285
 Thr Glu Phe Thr Ser Ser
 290

<210> 3186

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3186

Met Ser Val Thr Met Ser Phe Leu Ile Cys Ala Pro Gly Glu Gly Gly
 1 5 10 15
 Cys Gly Glu Asp Pro Val Cys Arg His Cys Val Pro Trp Gln Ser Arg
 20 25 30
 Gly Ala Pro Cys Gly Trp Pro Ala Lys Val Tyr Val Pro Leu Arg Ala
 35 40 45
 Glu Gly Lys Arg Gln Pro Arg Ser Cys Ala Ser Arg His Leu Met Gly
 50 55 60
 His Val Ser Gln Ile Cys Lys Ser Lys Ile Leu Ala Ser Tyr Leu Leu
 65 70 75 80
 Cys Arg Ile Asn Asn Phe Asn Asn Asn Gly Asn Trp Val Met Asp Gly
 85 90 95
 Thr Ala Ala Ile Arg Leu
 100

<210> 3187

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3187

```

Met Pro Ser Trp Arg Leu Ser Leu Phe Ile Ile Gly Ser His Ser Leu
 1             5             10             15
Val Gly Tyr Leu Cys Asp Leu Ala Ser Asp Val Pro Gly Gln Arg Pro
      20             25             30
Pro Trp Leu Gln Pro Arg Arg Arg Thr Arg Ser Arg Val Gly Trp Ser
      35             40             45
Gly Ser Trp Glu Glu Arg Val Ser Ala Cys Pro Gly Thr Pro Ser Ser
      50             55             60
Arg Glu Asp Thr Glu Ala Arg Thr Pro Leu Gly Phe Pro Gly Lys Trp
      65             70             75             80
Arg Arg Ser Val Leu Gly Arg Ser Ser Glu Leu Ile Pro Pro Arg Ile
      85             90             95
Gly Ala Gly Leu
      100

```

<210> 3188

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3188

```

Met Gly Asn Phe Trp Lys Gly Arg Gln Pro Phe Leu Lys Phe Gln Asn
 1             5             10             15
Glu Lys Asp Val Ile Leu Ile Leu Thr Gly Ser Leu Phe Ile Phe Leu
      20             25             30
Lys Lys Glu Ser Phe Leu Leu Ser His Phe Gln Leu Phe Phe Ser Leu
      35             40             45
Leu Phe Phe Phe Ser Phe Leu Ser Pro Leu Leu Leu Phe Leu Phe Pro
      50             55             60

```

Ser Pro Pro Pro Phe Phe Phe Phe Tyr Cys Ser Leu Gln Ser Arg Ala
65 70 75 80
Thr Pro Ile Gly Ser Val Thr Lys Val Thr Pro Ser Ser His Phe Cys
85 90 95
Pro Asp Phe Phe Ser Leu Phe Gln Ala Val Arg Leu Ser Cys Cys Leu
100 105 110
Cys Ser Trp Ala Ile Ile Pro Ser Phe Ala Tyr Cys Arg Leu
115 120 125

<210> 3189

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3189

Met Ser Lys Arg Leu Gln Ala Ala Ser Glu Ile Gln Pro Gly Asn Cys
1 5 10 15
Pro Gly Ser Ser Val Leu Pro Gly Met Glu Gly Pro Leu Ile Lys Pro
20 25 30
Ser Thr Pro Arg Leu Pro Pro Thr Leu Asp Arg Asp His His Tyr Leu
35 40 45
Gly Leu Asp Ala Gly Gly Thr Thr Ser Cys Pro Asn Ala Val Ala Trp
50 55 60
Ala Gln Ala Pro Gln Ala Leu Gly Pro Arg His Val Asp Lys Ala Thr
65 70 75 80
His His Ile Cys Gly Trp Leu Glu Ala Ala Leu Gly Pro Ser Cys Asp
85 90 95
Pro Gln Pro Trp Arg Ser Gly Cys Pro His Thr Trp Gly Ser Val Leu
100 105 110
Ser His Pro Met Pro Ala Ala Pro Cys Phe Trp Arg Ser Ser Pro Ser
115 120 125
Pro Pro Val Ser Ala Met Ser Pro Cys His Pro Val Gln Ala Met Pro
130 135 140
Phe Leu Gly Ser Ser Cys Pro Met Pro Glu Ala Arg Pro Phe Ser Trp
145 150 155 160

Phe Thr

<210> 3190

<211> 680

<212> PRT

<213> Homo sapiens

<400> 3190

Met Gly Cys Gly Thr Lys Glu Pro Lys Ile Thr Gln Leu Cys Leu Ala
 1 5 10 15

Ala Ile Gln Arg Leu Met Ser His Glu Val Val Ser Glu Thr Ala Ala
 20 25 30

Gly Asn Ile Ile Asn Met Leu Trp Gln Leu Met Glu Asn Ser Leu Glu
 35 40 45

Glu Leu Lys Leu Leu Gln Thr Val Leu Val Leu Leu Thr Thr Asn Thr
 50 55 60

Val Val His Asp Glu Ala Leu Ser Lys Ala Ile Val Leu Cys Phe Arg
 65 70 75 80

Leu His Phe Thr Lys Asp Asn Ile Thr Asn Asn Thr Ala Ala Ala Thr
 85 90 95

Val Arg Gln Val Val Thr Val Val Phe Glu Arg Met Val Ala Glu Asp
 100 105 110

Glu Arg His Arg Asp Ile Ile Glu Gln Pro Val Leu Val Gln Gly Asn
 115 120 125

Ser Asn Arg Arg Ser Val Ser Thr Leu Lys Pro Cys Ala Lys Asp Ala
 130 135 140

Tyr Met Leu Phe Gln Asp Leu Cys Gln Leu Val Asn Ala Asp Ala Pro
 145 150 155 160

Tyr Trp Leu Val Gly Met Thr Glu Met Thr Arg Thr Phe Gly Leu Glu
 165 170 175

Leu Leu Glu Ser Val Leu Asn Asp Phe Pro Gln Val Phe Leu Gln His
 180 185 190

Gln Glu Phe Ser Phe Leu Leu Lys Glu Arg Val Cys Pro Leu Val Ile

| | | |
|---|-------------------------------------|-----|
| 195 | 200 | 205 |
| Lys Leu Phe Ser Pro Asn Ile | Lys Phe Arg Gln Gly Ser Ser Thr Ser | |
| 210 | 215 | 220 |
| Ser Ser Pro Ala Pro Val Glu Lys Pro Tyr Phe Pro Ile Cys Met Arg | | |
| 225 | 230 | 235 |
| 240 | | |
| Leu Leu Arg Val Val Ser Val Leu Ile Lys Gln Phe Tyr Ser Leu Leu | | |
| 245 | 250 | 255 |
| Val Thr Glu Cys Glu Ile Phe Leu Ser Leu Leu Val Lys Phe Leu Asp | | |
| 260 | 265 | 270 |
| Ala Asp Lys Pro Gln Trp Leu Arg Ala Val Ala Val Glu Ser Ile His | | |
| 275 | 280 | 285 |
| Arg Phe Arg Val Gln Pro Gln Leu Leu Arg Ser Phe Cys Gln Ser Tyr | | |
| 290 | 295 | 300 |
| Asp Met Lys Gln His Ser Thr Lys Val Phe Arg Asp Ile Val Asn Ala | | |
| 305 | 310 | 315 |
| 320 | | |
| Leu Gly Ser Phe Ile Gln Ser Leu Phe Leu Val Pro Pro Thr Gly Asn | | |
| 325 | 330 | 335 |
| Pro Ala Thr Ser Asn Gln Ala Gly Asn Asn Asn Leu Gly Gly Ser Val | | |
| 340 | 345 | 350 |
| Ser Ala Pro Ala Asn Ser Gly Met Val Gly Ile Gly Gly Gly Val Thr | | |
| 355 | 360 | 365 |
| Leu Leu Pro Ala Phe Glu Tyr Arg Gly Thr Trp Ile Pro Ile Leu Thr | | |
| 370 | 375 | 380 |
| Ile Thr Val Gln Gly Ser Ala Lys Ala Thr Tyr Leu Glu Met Leu Asp | | |
| 385 | 390 | 395 |
| 400 | | |
| Lys Val Glu Pro Pro Thr Ile Pro Glu Gly Tyr Ala Met Ser Val Ala | | |
| 405 | 410 | 415 |
| Phe His Cys Leu Leu Asp Leu Val Arg Gly Ile Thr Ser Met Ile Glu | | |
| 420 | 425 | 430 |
| Gly Glu Leu Gly Glu Leu Glu Thr Glu Cys Gln Thr Thr Thr Glu Glu | | |
| 435 | 440 | 445 |
| Gly Ser Ser Pro Thr Gln Ser Thr Glu Gln Gln Asp Leu Gln Ser Thr | | |
| 450 | 455 | 460 |
| Ser Asp Gln Met Asp Lys Glu Ile Val Ser Arg Ala Val Trp Glu Glu | | |
| 465 | 470 | 475 |
| 480 | | |
| Met Val Asn Ala Cys Trp Cys Gly Leu Leu Ala Ala Leu Ser Leu Leu | | |

| | | | |
|---|-----|-----|-----|
| | 485 | 490 | 495 |
| Leu Asp Ala Ser Thr Asp Glu Ala Ala Thr Glu Asn Ile Leu Lys Ala | | | |
| 500 | 505 | 510 | |
| Glu Leu Thr Met Ala Ala Leu Cys Gly Arg Leu Gly Leu Val Thr Ser | | | |
| 515 | 520 | 525 | |
| Arg Asp Ala Phe Ile Thr Ala Ile Cys Lys Gly Ser Leu Pro Pro His | | | |
| 530 | 535 | 540 | |
| Tyr Ala Leu Thr Val Leu Asn Thr Thr Thr Ala Ala Thr Leu Ser Asn | | | |
| 545 | 550 | 555 | 560 |
| Lys Ser Tyr Ser Val Gln Gly Gln Ser Val Met Met Ile Ser Pro Ser | | | |
| 565 | 570 | 575 | |
| Ser Glu Ser His Gln Gln Val Val Ala Val Gly Gln Pro Leu Ala Val | | | |
| 580 | 585 | 590 | |
| Gln Pro Gln Gly Thr Val Met Leu Thr Ser Lys Asn Ile Gln Cys Met | | | |
| 595 | 600 | 605 | |
| Arg Thr Leu Leu Asn Leu Ala His Cys His Gly Ala Val Leu Gly Thr | | | |
| 610 | 615 | 620 | |
| Ser Trp Gln Leu Val Leu Ala Thr Leu Gln His Leu Val Trp Ile Leu | | | |
| 625 | 630 | 635 | 640 |
| Gly Leu Lys Pro Ser Ser Gly Gly Ala Leu Lys Pro Gly Arg Ala Val | | | |
| 645 | 650 | 655 | |
| Glu Gly Pro Ser Thr Val Pro Phe Lys Asp Phe Met Gln Pro Pro Ala | | | |
| 660 | 665 | 670 | |
| Ser Arg Val Gln Asn Gly Glu Ser | | | |
| 675 | 680 | | |

<210> 3191

<211> 198

<212> PRT

<213> Homo sapiens

<400> 3191

| |
|---|
| Met Cys Gly Ile Tyr Ala His Val Gln Glu Lys Pro Arg Thr Gln Ser |
| 1 5 10 15 |
| Ser Leu Asp Leu Met Gln Ile Pro Pro Ala Lys Ala Ser Ala Phe Ser |

20 25 30
 Asp Pro Ala Cys Pro Gly Asp Pro Thr Pro His Leu Leu Leu Glu Leu
 35 40 45
 Leu Asp Cys Thr Glu Val Gly Leu Val Val Gly Ala His Gly Gly Leu
 50 55 60
 Val Ala Leu Ala Pro Leu Glu Glu Cys Gly Leu Gln Leu Cys Ile Leu
 65 70 75 80
 Leu Leu Gln Leu Ala His Leu Leu Gln Val Val Gly Gln Ala Val Ile
 85 90 95
 Gln Glu Leu His Gly Leu Leu Leu Met Ala Ile Gln Gly Val Phe Ala
 100 105 110
 Val Gly Pro Thr Asp Ser Asp Val Ala Gly Asn Val Thr Gly Pro Trp
 115 120 125
 Gln Gly Thr Ser Ser Val Thr Gly Trp Gly Gln Thr Glu Ala Gly Ala
 130 135 140
 Ala Gln Gly Ser Arg Pro His Thr Asp Ser Val Gly Val Cys His Val
 145 150 155 160
 Gly Gln Glu Ala His Gly Gly Ser Ile Gly Leu Cys His Arg Leu Ala
 165 170 175
 Pro Asn Ile Asp Arg Arg Asp Lys Asp Ile Ser Cys Ser Arg Ser His
 180 185 190
 Gly Ala Thr Gln Arg Ala
 195

<210> 3192

<211> 225

<212> PRT

<213> Homo sapiens

<400> 3192

Met Ala Thr Phe Ile Gly Ala Ala Val Ser Asn Ser Ser Arg Gly Thr
 1 5 10 15
 Ala Pro Cys Gly Thr Gly Leu Pro Pro Arg Gln His Ala Gln Ser Ser
 20 25 30
 Ser Ser Gly Val Ile Leu Ser Ser Tyr Leu Tyr Pro Leu Leu Ile Thr

35 40 45
 Cys Lys Leu Arg Gly Arg Leu Phe Arg Ile Phe Trp Thr Lys Asp Asp
 50 55 60
 Thr Ser Arg Pro Leu Pro Trp Lys Gly Val Val Thr Phe Arg Cys Cys
 65 70 75 80
 His His Cys Gly Lys Leu Thr Trp Cys Cys Trp Val Cys Leu Met Glu
 85 90 95
 Arg Cys Phe His Cys Phe Pro Val His Leu Val Phe Asn Leu Val Gln
 100 105 110
 Ser Phe Ser Pro Thr Ser Gly Val Glu Ser Cys Leu Leu Pro Gln Cys
 115 120 125
 Asp Lys Cys Trp Pro Met Val Tyr Arg Ser Cys Asp Ala Ser Arg Gly
 130 135 140
 Leu Val Asn Ala Cys Ile Leu Gly Phe Val Leu Leu Glu Cys Ser Phe
 145 150 155 160
 Val Gly Ala Leu Asn Asn Tyr Val Arg Ser Leu Ala Thr Leu Leu Glu
 165 170 175
 Arg Thr His Gly Gly Lys Arg Leu Lys Leu Cys Glu Glu Ser Gln Ala
 180 185 190
 Ser His Pro Ser Phe Ser Ala Glu Pro Arg His Gln Pro Thr Cys Gln
 195 200 205
 Leu Asn Ala Thr Val Arg Val Ile Thr Ser Lys Ile Thr Arg Lys Thr
 210 215 220
 Thr
 225

<210> 3193

<211> 590

<212> PRT

<213> Homo sapiens

<400> 3193

Met Ala Thr Pro Arg Gly Arg Thr Lys Lys Lys Ala Ser Phe Asp His
 1 5 10 15
 Ser Pro Asp Ser Leu Pro Leu Arg Ser Ser Gly Arg Gln Ala Lys Lys

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 |
| Lys | Ala | Thr | Glu | Thr | Thr |
| | | Asp | Glu | Asp | Glu |
| | | | Asp | Gly | Gly |
| | | | | Ser | Glu |
| | | | | Lys | |
| | 35 | | 40 | | 45 |
| Lys | Tyr | Arg | Lys | Cys | Glu |
| | | | Lys | Ala | Gly |
| | | | | Cys | Thr |
| | | | | Ala | Thr |
| | | | | Cys | Pro |
| | | | | Val | |
| | 50 | | 55 | | 60 |
| Cys | Phe | Ala | Ser | Ala | Ser |
| | | | Glu | Arg | Cys |
| | | | | Ala | Lys |
| | | | | Asn | Gly |
| | | | | Tyr | Thr |
| | | | | Ser | |
| | 65 | | 70 | | 75 |
| | | | | | 80 |
| Arg | Trp | Tyr | His | Leu | Ser |
| | | | Cys | Gly | Glu |
| | | | | His | Phe |
| | | | | Cys | Asn |
| | | | | Glu | Cys |
| | | | | Phe | |
| | | 85 | | 90 | |
| | | | | 95 | |
| Asp | His | Tyr | Tyr | Arg | Ser |
| | | | His | Lys | Asp |
| | | | | Gly | Tyr |
| | | | | Asp | Lys |
| | | | | Tyr | Thr |
| | | | | Thr | |
| | 100 | | 105 | | 110 |
| Trp | Lys | Lys | Ile | Trp | Thr |
| | | | Ser | Asn | Gly |
| | | | | Lys | Thr |
| | | | | Glu | Pro |
| | | | | Ser | Pro |
| | | | | Lys | |
| | 115 | | 120 | | 125 |
| Ala | Phe | Met | Ala | Asp | Gln |
| | | | Gln | Leu | Pro |
| | | | | Tyr | Trp |
| | | | | Val | Gln |
| | | | | Cys | Thr |
| | | | | Lys | |
| | 130 | | 135 | | 140 |
| Pro | Glu | Cys | Arg | Lys | Trp |
| | | | Arg | Gln | Leu |
| | | | | Thr | Lys |
| | | | | Glu | Ile |
| | | | | Gln | Leu |
| | | | | Thr | |
| | 145 | | 150 | | 155 |
| | | | | | 160 |
| Pro | Gln | Ile | Ala | Lys | Thr |
| | | | Tyr | Arg | Cys |
| | | | | Gly | Met |
| | | | | Lys | Pro |
| | | | | Asn | Thr |
| | | | | Ala | |
| | | 165 | | 170 | |
| | | | | 175 | |
| Ile | Lys | Pro | Glu | Thr | Ser |
| | | | Asp | His | Cys |
| | | | | Ser | Leu |
| | | | | Pro | Glu |
| | | | | Asp | Leu |
| | | | | Glu | |
| | 180 | | 185 | | 190 |
| Ala | Leu | Thr | Pro | Gln | Lys |
| | | | Cys | Ile | Pro |
| | | | | His | Ile |
| | | | | Ile | Val |
| | | | | Arg | Gly |
| | | | | Leu | |
| | 195 | | 200 | | 205 |
| Val | Arg | Ile | Arg | Cys | Val |
| | | | Gln | Glu | Val |
| | | | | Glu | Arg |
| | | | | Ile | Leu |
| | | | | Tyr | Phe |
| | | | | Met | |
| | 210 | | 215 | | 220 |
| Thr | Arg | Lys | Gly | Leu | Ile |
| | | | Asn | Thr | Gly |
| | | | | Val | Leu |
| | | | | Ser | Val |
| | | | | Gly | Ala |
| | | | | Asp | |
| | 225 | | 230 | | 235 |
| | | | | | 240 |
| Gln | Tyr | Leu | Leu | Pro | Lys |
| | | | Asp | Tyr | His |
| | | | | Asn | Lys |
| | | | | Ser | Val |
| | | | | Ile | Ile |
| | | | | Ile | |
| | | 245 | | 250 | |
| | | | | 255 | |
| Gly | Ala | Gly | Pro | Ala | Gly |
| | | | Leu | Ala | Ala |
| | | | | Ala | Arg |
| | | | | Gln | Leu |
| | | | | His | Asn |
| | | | | Phe | |
| | 260 | | 265 | | 270 |
| Gly | Ile | Lys | Val | Thr | Val |
| | | | Leu | Glu | Ala |
| | | | | Lys | Asp |
| | | | | Arg | Ile |
| | | | | Gly | Gly |
| | | | | Arg | |
| | 275 | | 280 | | 285 |
| Val | Trp | Asp | Asp | Lys | Ser |
| | | | Phe | Lys | Gly |
| | | | | Val | Thr |
| | | | | Val | Gly |
| | | | | Arg | Gly |
| | | | | Ala | |
| | 290 | | 295 | | 300 |
| Gln | Ile | Val | Asn | Gly | Cys |
| | | | Ile | Asn | Asn |
| | | | | Pro | Val |
| | | | | Ala | Leu |
| | | | | Met | Cys |
| | | | | Glu | |

| | | | |
|---|-----|-----|-----|
| 305 | 310 | 315 | 320 |
| Gln Val Ser Ala Arg Ser Trp Asp His Asn Glu Phe Phe Ala Gln Phe | | | |
| | 325 | 330 | 335 |
| Ala Gly Asp His Thr Leu Leu Thr Pro Gly Tyr Ser Val Ile Ile Glu | | | |
| | 340 | 345 | 350 |
| Lys Leu Ala Glu Gly Leu Asp Ile Gln Leu Lys Ser Pro Val Gln Cys | | | |
| | 355 | 360 | 365 |
| Ile Asp Tyr Ser Gly Asp Glu Val Gln Val Thr Thr Thr Asp Gly Thr | | | |
| | 370 | 375 | 380 |
| Gly Tyr Ser Ala Gln Lys Val Leu Val Thr Val Pro Leu Ala Leu Leu | | | |
| 385 | 390 | 395 | 400 |
| Gln Lys Gly Ala Ile Gln Phe Asn Pro Pro Leu Ser Glu Lys Lys Met | | | |
| | 405 | 410 | 415 |
| Lys Ala Thr Asn Ser Leu Gly Ala Gly Ile Ile Glu Lys Ile Ala Leu | | | |
| | 420 | 425 | 430 |
| Gln Phe Pro Tyr Arg Phe Trp Asp Ser Lys Val Gln Gly Ala Asp Phe | | | |
| | 435 | 440 | 445 |
| Phe Gly His Val Pro Pro Ser Ala Ser Lys Arg Gly Leu Phe Ala Val | | | |
| | 450 | 455 | 460 |
| Phe Tyr Asp Met Asp Pro Gln Lys Lys His Ser Val Leu Met Ser Val | | | |
| 465 | 470 | 475 | 480 |
| Ile Ala Gly Glu Ala Val Ala Ser Val Arg Thr Leu Asp Asp Lys Gln | | | |
| | 485 | 490 | 495 |
| Val Leu Gln Gln Cys Met Ala Thr Leu Arg Glu Leu Phe Lys Glu Gln | | | |
| | 500 | 505 | 510 |
| Glu Val Pro Asp Pro Thr Lys Tyr Phe Val Thr Arg Trp Ser Thr Asp | | | |
| | 515 | 520 | 525 |
| Pro Trp Ile Gln Met Ala Tyr Ser Phe Val Lys Thr Gly Gly Ser Gly | | | |
| | 530 | 535 | 540 |
| Glu Ala Tyr Asp Ile Ile Ala Glu Asp Ile Gln Gly Thr Val Phe Phe | | | |
| 545 | 550 | 555 | 560 |
| Ala Gly Glu Ala Thr Asn Arg His Phe Pro Gln Thr Val Thr Gly Ala | | | |
| | 565 | 570 | 575 |
| Tyr Leu Ser Gly Val Arg Glu Ala Ser Lys Ile Ala Ala Phe | | | |
| | 580 | 585 | 590 |

<210> 3194

<211> 175

<212> PRT

<213> Homo sapiens

<400> 3194

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Met Thr Arg Thr Pro Val Gly Ser Ala Arg Thr Arg Pro Lys Pro Arg
  1             5             10             15
Lys Leu Gly Pro Gln Arg Gly Lys Ala Leu Gln Ala Ser Ser Arg Leu
          20             25             30
Ser Glu Ser Pro Ala Leu Val Lys Lys Arg Met Pro Asp Ala Cys Thr
          35             40             45
Leu Gly Arg Ala Gly Ile Gly Leu Pro Lys Met Cys Leu His Met Ala
          50             55             60
Val Arg His Ser Lys Ala Gln Lys Thr Gly Pro Gly Ile Leu Gln Gln
          65             70             75             80
Arg Gln Lys Pro Pro Ala Pro Arg Ala Ser Gly Gly Pro Ala Leu Leu
          85             90             95
Gly Lys Arg Arg Gly Cys Ser Glu Ala Gly Ser Ala Ser Leu Glu Pro
          100            105            110
Leu Ser Ser Ser Arg Ala Ala Ala Gly Cys Leu Asn Gln Val Pro Leu
          115            120            125
Ser Pro Phe Leu Ala Gly Pro Arg Asn Thr Arg Arg Leu Pro Ala Pro
          130            135            140
Glu Arg Glu Arg Ile Glu Leu Ala Ala Thr Leu Cys Leu Glu Gly Trp
          145            150            155            160
Pro Leu Arg Cys Leu Ala Ser Lys Gly Lys Leu His Cys Val Tyr
          165            170            175

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<210> 3195

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3195

Met Arg Pro Asp Asp Ile Asn Pro Arg Thr Gly Leu Val Val Ala Leu
 1 5 10 15
 Val Ser Val Phe Leu Val Phe Gly Phe Met Phe Thr Val Ser Gly Met
 20 25 30
 Lys Gly Glu Thr Leu Gly Asn Ile Pro Leu Leu Ala Ile Gly Pro Ala
 35 40 45
 Ile Cys Leu Pro Gly Ile Ala Ala Ile Ala Leu Ala Arg Lys Thr Glu
 50 55 60
 Gly Cys Thr Lys Arg Pro Glu Asn Glu Leu Leu Trp Val Arg Lys Leu
 65 70 75 80
 Pro Cys Phe Arg Lys Pro Lys Asp Lys Glu Val Val Glu Leu Leu Arg
 85 90 95
 Thr Pro Ser Asp Leu Glu Ser Gly Lys Gly Ser Ser Asp Glu Leu Ala
 100 105 110
 Lys Lys Ala Gly Leu Arg Gly Lys Pro Pro Pro Gln Ser Gln Gly Glu
 115 120 125
 Val Ser Val Ala Ser Ser Ile Asn Ser Pro Thr Pro Thr Glu Glu Gly
 130 135 140
 Glu Cys Gln Ser Leu Val Gln Asn Gly His Gln Glu Glu Thr Ser Arg
 145 150 155 160
 Tyr Leu Asp Gly Tyr Cys Pro Ser Gly Ser Ser Leu Thr Tyr Ser Ala
 165 170 175
 Leu Asp Val Lys Cys Ser Ala Arg Asp Arg Ser Glu Cys Pro Glu Pro
 180 185 190
 Glu Asp Ser Ile Phe Phe Val Pro Gln Asp Ser Ile Ile Val Cys Ser
 195 200 205
 Tyr Lys Gln Asn Ser Pro Tyr Asp Arg Tyr Cys Cys Tyr Ile Asn Gln
 210 215 220
 Ile Gln Gly Arg Trp Asp His Glu Thr Ile Val
 225 230 235

<210> 3196

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3196

```

Met Tyr Trp Gln Asn Trp Thr His Asn Gly Arg Phe Trp Gly Ala Gly
 1              5              10              15
Val His Leu Tyr Leu Ser Arg Lys Gln Cys Ala Leu Lys Asn Thr Ser
      20              25              30
Leu Ser Lys Phe Gln Thr Ser His Ile Cys Lys Gly Ser Ala Leu Gln
      35              40              45
Pro Gln Gln Ala Ser Pro Gly Ala Ser Ser Phe Leu Thr Cys Ser Glu
      50              55              60
Leu Gly Val Met Tyr Leu Lys Leu Val Leu Gly Gln Met Val Gln Ala
      65              70              75              80
Val Arg Arg Asp Ser Gly Leu Gln Pro Phe Gly Ser Leu Phe Leu Leu
      85              90              95
Ile Thr Gln Lys Arg Ala Val Leu Thr Pro Phe Leu Thr Lys Thr Trp
      100             105             110
His Ser Leu Arg Ala Leu Val Tyr Arg Val Trp Ser Leu Glu Glu Ser
      115             120             125
Arg Tyr Leu Gln Arg Glu Lys Gly Leu Val Asp Ser Phe Gly Val Leu
      130             135             140
Trp Glu Glu
145

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<210> 3197

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3197

```

Met Ala Gly Trp Gly Ser Tyr Ser Val Thr Ala Thr Pro Phe Thr Ala
 1              5              10              15
Val Ile Met Ser Met Leu Ser Thr Ser Leu Glu Ser Leu Val Leu Ser
      20              25              30
Ser Val Leu Ile Arg Phe Met Ala Leu Asn Pro Arg Ser Gln Gln Glu

```


35 40 45
 Val Glu Met Gly Thr Gln Thr Thr Thr Ala Met Ser Leu Leu Ser Arg
 50 55 60
 Gly Lys Arg Gln Cys Trp Ala Arg Ala Phe Leu Gln Ser Met Glu Asn
 65 70 75 80
 Gly Arg Cys Trp Ala Met Val Phe Arg Pro Ser His Ser Ser Ser Arg
 85 90 95
 Ala Ser Ser Leu Tyr Pro Val Gly Arg Glu His Ser Lys Tyr Leu Ala
 100 105 110
 Arg Leu Arg Met Ser Ser Phe Pro Lys Leu Ala Ser Ser Ile Pro Leu
 115 120 125
 Gly Gln Ala Met Val Ser Asn Thr Ser Met Phe Phe Ser Cys Gly Gly
 130 135 140
 Arg Ser Ala Ser Asn Leu Cys Trp Arg Tyr Ser Ile Pro Val Arg Thr
 145 150 155 160
 Val Leu Ser Leu Ser Ala Trp Asn Arg Cys Ser Ala Thr Ser Ser Leu
 165 170 175
 Ser Lys Gln Met Pro Trp Ser Arg Pro Ser Leu Lys Leu Ala Leu Asn
 180 185 190
 Ser Ser Ser Leu Gly Pro Ala Trp
 195 200

<210> 3198

<211> 303

<212> PRT

<213> Homo sapiens

<400> 3198

Met Thr Glu Arg Glu Trp Thr Phe Gln Trp Phe Leu Asn Leu Glu Val
 1 5 10 15
 Ile Gln Glu Gly Asp Gly Pro Val Ile Ser Arg Asp Gly Arg Val Leu
 20 25 30
 Thr Ile Pro Thr Val Thr Arg Asn Asp Ser Ser Thr Tyr His Cys Glu
 35 40 45
 Ala Arg Asn His Leu Gly Ser Arg Leu Ser Glu Ala Leu Val Val Gly

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Val Ala Tyr Gly Pro Asp Thr Pro Ile Val Thr Ala Leu Asp Pro Asp | | |
| 65 | 70 | 75 |
| Phe Val Ile Gly Ser Asn Leu Thr Leu Val Cys Leu Ala Tyr Ser His | | 80 |
| 85 | 90 | 95 |
| Leu Leu Ala Gln Tyr Thr Trp Ser Phe Ser Gly Val Thr Thr Trp Glu | | |
| 100 | 105 | 110 |
| Gly Gln Thr Leu Phe Met Pro Ser Leu Ser Arg Ala His Ser Gly Val | | |
| 115 | 120 | 125 |
| Tyr Thr Cys Lys Ala Ser Asn Ser Leu Ser Gly Leu His Ser Ser Met | | |
| 130 | 135 | 140 |
| Asp Thr Ile Ile Thr Val Ser Glu Thr Leu Pro Gln Pro Asn Val Thr | | |
| 145 | 150 | 155 |
| Ala Ser Asn Leu Ala Pro Val Glu His Val Asp Ser Ile Ser Leu His | | 160 |
| 165 | 170 | 175 |
| Cys Leu Pro Pro Arg Ser Thr Val Ala Ile Arg Arg Asp Val Asn Gly | | |
| 180 | 185 | 190 |
| Gln Lys Leu Phe Ile Gly Gly His Arg Glu Leu Ser Leu Asp Cys Arg | | |
| 195 | 200 | 205 |
| Thr Leu Thr Leu Ser Asn Ile Thr Arg Asn Asp Thr Gly Val Tyr Gln | | |
| 210 | 215 | 220 |
| Cys Glu Ser Trp Asn Ser Ala Thr Ser Ser Ile Ser Asn Pro Thr Leu | | |
| 225 | 230 | 235 |
| Ile Lys Val Thr Tyr Gly Pro Asp Pro Pro Met Val Asn Pro Pro Asp | | |
| 245 | 250 | 255 |
| Pro Glu Val Thr Ala Gly Ala Ala Leu Thr Leu Ser Cys Phe Ala Asp | | |
| 260 | 265 | 270 |
| Ser Asn Pro Pro Ala Gln Tyr His Trp Glu Met Asp Arg Arg Pro Gly | | |
| 275 | 280 | 285 |
| Pro Ala Thr Gln His Leu Val Ile Ser Glu Val Thr Leu Asp Gln | | |
| 290 | 295 | 300 |

<210> 3199

<211> 585

<212> PRT

<213> Homo sapiens

<400> 3199

Met Glu Met Arg Leu Pro Ile Arg Ser Pro Ile Lys Arg Asp Phe Leu
 1 5 10 15
 Ser Gly Ile Gln Ile Glu Phe Lys Gln Ser Ser His Gln Arg Ser Leu
 20 25 30
 Arg Ala Arg Leu Tyr Trp Leu Gln Val Asp Asn Gln Leu Pro Gly Ala
 35 40 45
 Met Phe Pro Val Val Phe His Pro Val Ala Pro Pro Lys Ser Ile Ala
 50 55 60
 Leu Asp Ser Glu Pro Lys Pro Phe Ile Asp Val Ser Val Ile Thr Arg
 65 70 75 80
 Phe Asn Glu Tyr Ser Lys Val Leu Gln Phe Lys Tyr Phe Met Val Leu
 85 90 95
 Ile Gln Glu Met Ala Leu Lys Ile Asp Gln Gly Phe Leu Gly Ala Ile
 100 105 110
 Ile Ala Leu Phe Thr Pro Thr Thr Asp Pro Glu Ala Glu Arg Arg Arg
 115 120 125
 Thr Lys Leu Ile Gln Gln Asp Ile Asp Ala Leu Asn Ala Glu Leu Met
 130 135 140

 Glu Thr Ser Met Thr Asp Met Ser Ile Leu Ser Phe Phe Glu His Phe
 145 150 155 160
 His Ile Ser Pro Val Lys Leu His Leu Ser Leu Ser Leu Gly Ser Gly
 165 170 175
 Gly Glu Glu Ser Asp Lys Glu Lys Gln Glu Met Phe Ala Val His Ser
 180 185 190
 Val Asn Leu Leu Leu Lys Ser Ile Gly Ala Thr Leu Thr Asp Val Asp
 195 200 205
 Asp Leu Ile Phe Lys Leu Ala Tyr Tyr Glu Ile Arg Tyr Gln Phe Tyr
 210 215 220
 Lys Arg Asp Gln Leu Ile Trp Ser Val Val Arg His Tyr Ser Glu Gln
 225 230 235 240
 Phe Leu Lys Gln Met Tyr Val Leu Val Leu Gly Leu Asp Val Leu Gly
 245 250 255

Asn Pro Phe Gly Leu Ile Arg Gly Leu Ser Glu Gly Val Glu Ala Leu
 260 265 270
 Phe Tyr Glu Pro Phe Gln Gly Ala Val Gln Gly Pro Glu Glu Phe Ala
 275 280 285
 Glu Gly Leu Val Ile Gly Val Arg Ser Leu Phe Gly His Thr Val Gly
 290 295 300
 Gly Ala Ala Gly Val Val Ser Arg Ile Thr Gly Ser Val Gly Lys Gly
 305 310 315 320
 Leu Ala Ala Ile Thr Met Asp Lys Glu Tyr Gln Gln Lys Arg Arg Glu
 325 330 335
 Glu Leu Ser Arg Gln Pro Arg Asp Phe Gly Asp Ser Leu Ala Arg Gly
 340 345 350
 Gly Lys Gly Phe Leu Arg Gly Val Val Gly Gly Val Thr Gly Ile Ile
 355 360 365
 Thr Lys Pro Val Glu Gly Ala Lys Lys Glu Gly Ala Ala Gly Phe Phe
 370 375 380
 Lys Gly Ile Gly Lys Gly Leu Val Gly Ala Val Ala Arg Pro Thr Gly
 385 390 395 400
 Gly Ile Val Asp Met Ala Ser Ser Thr Phe Gln Gly Ile Gln Arg Ala
 405 410 415
 Ala Glu Ser Thr Glu Glu Val Ser Ser Leu Arg Pro Pro Arg Leu Ile
 420 425 430
 His Glu Asp Gly Ile Ile Arg Pro Tyr Asp Arg Gln Glu Ser Glu Gly
 435 440 445
 Ser Asp Leu Leu Glu Asn His Ile Lys Lys Leu Glu Gly Glu Thr Tyr
 450 455 460
 Arg Tyr His Cys Ala Ile Pro Gly Ser Lys Lys Thr Ile Leu Met Val
 465 470 475 480
 Thr Asn Arg Arg Val Leu Cys Ile Lys Glu Val Glu Ile Leu Gly Leu
 485 490 495
 Met Cys Val Asp Trp Gln Cys Pro Phe Glu Asp Phe Val Phe Pro Pro
 500 505 510
 Ser Val Ser Glu Asn Val Leu Lys Ile Ser Val Lys Glu Gln Gly Leu
 515 520 525
 Phe His Lys Lys Asp Ser Ala Asn Gln Gly Cys Val Arg Lys Val Tyr
 530 535 540

Leu Lys Asp Thr Ala Thr Ala Glu Arg Ala Cys Asn Ala Ile Glu Asp
 545 550 555 560
 Ala Gln Ser Thr Arg Gln Gln Gln Lys Leu Met Lys Gln Ser Ser Val
 565 570 575
 Arg Leu Leu Arg Pro Gln Leu Pro Ser
 580 585

<210> 3200

<211> 1685

<212> PRT

<213> Homo sapiens

<400> 3200

Met Ser Leu Pro Phe Tyr Gln Arg Cys His Gln His Tyr Asp Leu Ser
 1 5 10 15
 Tyr Arg Asn Lys Asp Val Arg Ser Thr Val Ser His Tyr Gln Arg Glu
 20 25 30
 Lys Lys Arg Ser Ala Val Tyr Thr Gln Gly Ser Thr Ala Tyr Ser Ser
 35 40 45
 Arg Ser Ser Ala Ala His Arg Arg Glu Ser Glu Ala Phe Arg Arg Ala
 50 55 60
 Ser Ala Ser Ser Ser Gln Gln Gln Ala Ser Gln His Ala Leu Ser Ser
 65 70 75 80
 Glu Val Ser Arg Lys Ala Ala Ser Ala Tyr Asp Tyr Gly Ser Ser His
 85 90 95
 Gly Leu Thr Asp Ser Ser Leu Leu Leu Asp Asp Tyr Ser Ser Lys Leu
 100 105 110
 Ser Pro Lys Pro Lys Arg Ala Lys His Ser Leu Leu Ser Gly Glu Glu
 115 120 125
 Lys Glu Asn Leu Pro Ser Asp Tyr Met Val Pro Ile Phe Ser Gly Arg
 130 135 140
 Gln Lys His Val Ser Gly Ile Thr Asp Thr Glu Glu Glu Arg Ile Lys
 145 150 155 160
 Glu Ala Ala Ala Tyr Ile Ala Gln Arg Asn Leu Leu Ala Ser Glu Glu

| | | | | | |
|-----|---|-------------------------|-----|-----|-----|
| | 165 | | 170 | | 175 |
| Gly | Ile Thr Thr Pro Lys Gln Ser Thr | Ala Ser Lys Gln Thr Thr | Ala | | |
| | 180 | | 185 | | 190 |
| Ser | Lys Gln Ser Thr Ala Ser Lys Gln Ser Thr | Ala Ser Lys Gln Ser | | | |
| | 195 | | 200 | | 205 |
| Thr | Ala Ser Arg Gln Ser Thr Ala Ser Arg Gln Ser | Val Val Ser Lys | | | |
| | 210 | | 215 | | 220 |
| Gln | Ala Thr Ser Ala Leu Gln Gln Glu Glu Thr Ser | Glu Lys Lys Ser | | | |
| 225 | | 230 | | 235 | 240 |
| Arg | Lys Val Val Ile Arg Glu Lys Ala Glu Arg Leu Ser | Leu Arg Lys | | | |
| | 245 | | 250 | | 255 |
| Thr | Leu Glu Glu Thr Glu Thr Tyr His Ala Lys Leu Asn | Glu Asp His | | | |
| | 260 | | 265 | | 270 |
| Leu | Leu His Ala Pro Glu Phe Ile Ile Lys Pro Arg Ser | His Thr Val | | | |
| | 275 | | 280 | | 285 |
| Trp | Glu Lys Glu Asn Val Lys Leu His Cys Ser Ile Ala | Gly Trp Pro | | | |
| | 290 | | 295 | | 300 |
| Glu | Pro Arg Val Thr Trp Tyr Lys Asn Gln Val Pro Ile | Asn Val His | | | |
| 305 | | 310 | | 315 | 320 |
| Ala | Asn Pro Gly Lys Tyr Ile Ile Glu Ser Arg Tyr Gly | Met His Thr | | | |
| | 325 | | 330 | | 335 |
| Leu | Glu Ile Asn Ala Cys Asp Phe Glu Asp Thr Ala Gln | Tyr Arg Ala | | | |
| | 340 | | 345 | | 350 |
| Ser | Ala Met Asn Val Lys Gly Glu Leu Ser Ala Tyr Ala | Ser Val Val | | | |
| | 355 | | 360 | | 365 |
| Val | Lys Arg Tyr Lys Gly Glu Phe Asp Glu Thr Arg Phe | His Ala Gly | | | |
| | 370 | | 375 | | 380 |
| Ala | Ser Thr Met Pro Leu Ser Phe Gly Val Thr Pro Tyr | Gly Tyr Ala | | | |
| 385 | | 390 | | 395 | 400 |
| Ser | Arg Phe Glu Ile His Phe Asp Asp Lys Phe Asp Val | Ser Phe Gly | | | |
| | 405 | | 410 | | 415 |
| Arg | Glu Gly Glu Thr Met Ser Leu Gly Cys Arg Val Val | Ile Thr Pro | | | |
| | 420 | | 425 | | 430 |
| Glu | Ile Lys His Phe Gln Pro Glu Ile Gln Trp Tyr Arg | Asn Gly Val | | | |
| | 435 | | 440 | | 445 |
| Pro | Leu Ser Pro Ser Lys Trp Val Gln Thr Leu Trp Ser | Gly Glu Arg | | | |

| | | |
|---|-----|-----|
| 450 | 455 | 460 |
| Ala Thr Leu Thr Phe Ser His Leu Asn Lys Glu Asp Glu Gly Leu Tyr | | |
| 465 | 470 | 475 |
| Thr Ile Arg Val Arg Met Gly Glu Tyr Tyr Glu Gln Tyr Ser Ala Tyr | | 480 |
| | 485 | 490 |
| | | 495 |
| Val Phe Val Arg Asp Ala Asp Ala Glu Ile Glu Gly Ala Pro Ala Ala | | |
| | 500 | 505 |
| | | 510 |
| Pro Leu Asp Val Lys Cys Leu Glu Ala Asn Lys Asp Tyr Ile Ile Ile | | |
| | 515 | 520 |
| | | 525 |
| Ser Trp Lys Gln Pro Ala Val Asp Gly Gly Ser Pro Ile Leu Gly Tyr | | |
| | 530 | 535 |
| | | 540 |
| Phe Ile Asp Lys Cys Glu Val Gly Thr Asp Ser Trp Ser Gln Cys Asn | | |
| 545 | 550 | 555 |
| | | 560 |
| Asp Thr Pro Val Lys Phe Ala Arg Phe Pro Val Thr Gly Leu Ile Glu | | |
| | 565 | 570 |
| | | 575 |
| Gly Arg Ser Tyr Ile Phe Arg Val Arg Ala Val Asn Lys Met Gly Ile | | |
| | 580 | 585 |
| | | 590 |
| Gly Phe Pro Ser Arg Val Ser Glu Pro Val Ala Ala Leu Asp Pro Ala | | |
| | 595 | 600 |
| | | 605 |
| Glu Lys Ala Arg Leu Lys Ser Arg Pro Ser Ala Pro Trp Thr Gly Gln | | |
| | 610 | 615 |
| | | 620 |
| Ile Ile Val Thr Glu Glu Glu Pro Ser Glu Gly Ile Val Pro Gly Pro | | |
| 625 | 630 | 635 |
| | | 640 |
| Pro Thr Asp Leu Ser Val Thr Glu Ala Thr Arg Ser Tyr Val Val Leu | | |
| | 645 | 650 |
| | | 655 |
| Ser Trp Lys Pro Pro Gly Gln Arg Gly His Glu Gly Ile Met Tyr Phe | | |
| | 660 | 665 |
| | | 670 |
| Val Glu Lys Cys Glu Ala Gly Thr Glu Asn Trp Gln Arg Val Asn Thr | | |
| | 675 | 680 |
| | | 685 |
| Glu Leu Pro Val Lys Ser Pro Arg Phe Ala Leu Phe Asp Leu Ala Glu | | |
| | 690 | 695 |
| | | 700 |
| Gly Lys Ser Tyr Cys Phe Arg Val Arg Cys Ser Asn Ser Ala Gly Val | | |
| 705 | 710 | 715 |
| | | 720 |
| Gly Glu Pro Ser Glu Ala Thr Glu Val Thr Val Val Gly Asp Lys Leu | | |
| | 725 | 730 |
| | | 735 |
| Asp Ile Pro Lys Ala Pro Gly Lys Ile Ile Pro Ser Arg Asn Thr Asp | | |

| | | |
|---|-------------------------------------|------|
| 740 | 745 | 750 |
| Thr Ser Val Val Val Ser Trp | Glu Glu Ser Lys Asp Ala Lys Glu Leu | |
| 755 | 760 | 765 |
| Val Gly Tyr Tyr Ile Glu Ala Ser Val Ala Gly Ser Gly Lys Trp Glu | | |
| 770 | 775 | 780 |
| Pro Cys Asn Asn Asn Pro Val Lys Gly Ser Arg Phe Thr Cys His Gly | | |
| 785 | 790 | 795 |
| Leu Val Thr Gly Gln Ser Tyr Ile Phe Arg Val Arg Ala Val Asn Ala | | |
| 805 | 810 | 815 |
| Ala Gly Leu Ser Glu Tyr Ser Gln Asp Ser Glu Ala Ile Glu Val Lys | | |
| 820 | 825 | 830 |
| Ala Ala Ile Gly Gly Gly Val Ser Pro Asp Val Cys Pro Ala Leu Ser | | |
| 835 | 840 | 845 |
| Asp Glu Pro Gly Gly Leu Thr Ala Ser Arg Gly Arg Val His Glu Ala | | |
| 850 | 855 | 860 |
| Ser Pro Pro Thr Phe Gln Lys Asp Ala Leu Leu Gly Ser Lys Pro Asn | | |
| 865 | 870 | 875 |
| Lys Pro Ser Leu Pro Ser Ser Ser Gln Asn Leu Gly Gln Thr Glu Val | | |
| 885 | 890 | 895 |
| Ser Lys Val Ser Glu Thr Val Gln Glu Glu Leu Thr Pro Pro Pro Gln | | |
| 900 | 905 | 910 |
| Lys Ala Ala Pro Gln Gly Lys Ser Lys Ser Asp Pro Leu Lys Lys Lys | | |
| 915 | 920 | 925 |
| Thr Asp Arg Ala Pro Pro Ser Pro Pro Cys Asp Ile Thr Cys Leu Glu | | |
| 930 | 935 | 940 |
| Ser Phe Arg Asp Ser Met Val Leu Gly Trp Lys Gln Pro Asp Lys Thr | | |
| 945 | 950 | 955 |
| Gly Gly Ala Glu Ile Thr Gly Tyr Tyr Val Asn Tyr Arg Glu Val Ile | | |
| 965 | 970 | 975 |
| Asp Gly Val Pro Gly Lys Trp Arg Glu Ala Asn Val Lys Ala Val Ser | | |
| 980 | 985 | 990 |
| Glu Glu Ala Tyr Lys Ile Ser Asn Ser Lys Glu Asn Met Val Tyr Gln | | |
| 995 | 1000 | 1005 |
| Phe Gln Val Ala Ala Met Asn Met Ala Gly Leu Gly Ala Pro Ser Ala | | |
| 1010 | 1015 | 1020 |
| Val Ser Glu Cys Phe Lys Cys Glu Glu Trp Thr Ile Ala Val Pro Gly | | |

| | | | |
|---|------|------|------|
| 1025 | 1030 | 1035 | 1040 |
| Pro Pro His Ser Leu Lys Cys Ser Glu Val Arg Lys Asp Ser Leu Val | | | |
| | 1045 | 1050 | 1055 |
| Leu Gln Trp Lys Pro Pro Val His Ser Gly Arg Thr Pro Val Thr Gly | | | |
| | 1060 | 1065 | 1070 |
| Tyr Phe Val Asp Leu Lys Glu Ala Lys Ala Lys Glu Asp Gln Trp Arg | | | |
| | 1075 | 1080 | 1085 |
| Gly Leu Asn Glu Ala Ala Ile Lys Asn Val Tyr Leu Lys Val Arg Gly | | | |
| | 1090 | 1095 | 1100 |
| Leu Lys Glu Gly Val Ser Tyr Val Phe Arg Val Arg Ala Ile Asn Gln | | | |
| 1105 | 1110 | 1115 | 1120 |
| Ala Gly Val Gly Lys Pro Ser Asp Leu Ala Gly Pro Val Val Ala Glu | | | |
| | 1125 | 1130 | 1135 |
| Thr Arg Pro Gly Thr Lys Glu Val Val Val Asn Val Asp Asp Asp Gly | | | |
| | 1140 | 1145 | 1150 |
| Val Ile Ser Leu Asn Phe Glu Cys Asp Lys Met Thr Pro Lys Ser Glu | | | |
| | 1155 | 1160 | 1165 |
| Phe Ser Trp Ser Lys Asp Tyr Val Ser Thr Glu Asp Ser Pro Arg Leu | | | |
| 1170 | 1175 | 1180 | |
| Glu Val Glu Ser Lys Gly Asn Lys Thr Lys Met Thr Phe Lys Asp Leu | | | |
| 1185 | 1190 | 1195 | 1200 |
| Gly Met Asp Asp Leu Gly Ile Tyr Ser Cys Asp Val Thr Asp Thr Asp | | | |
| | 1205 | 1210 | 1215 |
| Gly Ile Ala Ser Ser Tyr Leu Ile Asp Glu Glu Glu Leu Lys Arg Leu | | | |
| | 1220 | 1225 | 1230 |
| Leu Ala Leu Ser His Glu His Lys Phe Pro Thr Val Pro Val Lys Ser | | | |
| 1235 | 1240 | 1245 | |
| Glu Leu Ala Val Glu Ile Leu Glu Lys Gly Gln Val Arg Phe Trp Met | | | |
| 1250 | 1255 | 1260 | |
| Gln Ala Glu Lys Leu Ser Gly Asn Ala Lys Val Asn Tyr Ile Phe Asn | | | |
| 1265 | 1270 | 1275 | 1280 |
| Glu Lys Glu Ile Phe Glu Gly Pro Lys Tyr Lys Met His Ile Asp Arg | | | |
| | 1285 | 1290 | 1295 |
| Asn Thr Gly Ile Ile Glu Met Phe Met Glu Lys Leu Gln Asp Glu Asp | | | |
| | 1300 | 1305 | 1310 |
| Glu Gly Thr Tyr Thr Phe Gln Leu Gln Asp Gly Lys Ala Thr Asn His | | | |

| | | |
|---|------|------|
| 1315 | 1320 | 1325 |
| Ser Thr Val Val Leu Val Gly Asp Val Phe Lys Lys Leu Gln Lys Glu | | |
| 1330 | 1335 | 1340 |
| Ala Glu Phe Gln Arg Gln Glu Trp Ile Arg Lys Gln Gly Pro His Phe | | |
| 1345 | 1350 | 1355 |
| Val Glu Tyr Leu Ser Trp Glu Val Thr Gly Glu Cys Asn Val Leu Leu | | |
| 1365 | 1370 | 1375 |
| Lys Cys Lys Val Ala Asn Ile Lys Lys Glu Thr His Ile Val Trp Tyr | | |
| 1380 | 1385 | 1390 |
| Lys Asp Glu Arg Glu Ile Ser Val Asp Glu Lys His Asp Phe Lys Asp | | |
| 1395 | 1400 | 1405 |
| Gly Ile Cys Thr Leu Leu Ile Thr Glu Phe Ser Lys Lys Asp Ala Gly | | |
| 1410 | 1415 | 1420 |
| Ile Tyr Glu Val Ile Leu Lys Asp Asp Arg Gly Lys Asp Lys Ser Arg | | |
| 1425 | 1430 | 1435 |
| Leu Lys Leu Val Asp Glu Ala Phe Lys Glu Leu Met Met Glu Val Cys | | |
| 1445 | 1450 | 1455 |
| Lys Lys Ile Ala Leu Ser Ala Thr Asp Leu Lys Ile Gln Ser Thr Ala | | |
| 1460 | 1465 | 1470 |
| Glu Gly Ile Gln Leu Tyr Ser Phe Val Thr Tyr Tyr Val Glu Asp Leu | | |
| 1475 | 1480 | 1485 |
| Lys Val Asn Trp Ser His Asn Gly Ser Ala Ile Arg Tyr Ser Asp Arg | | |
| 1490 | 1495 | 1500 |
| Val Lys Thr Gly Val Thr Gly Glu Gln Ile Trp Leu Gln Ile Asn Glu | | |
| 1505 | 1510 | 1515 |
| Pro Thr Pro Asn Asp Lys Gly Lys Tyr Val Met Glu Leu Phe Asp Gly | | |
| 1525 | 1530 | 1535 |
| Lys Thr Gly His Gln Lys Thr Val Asp Leu Ser Gly Gln Ala Tyr Asp | | |
| 1540 | 1545 | 1550 |
| Glu Ala Tyr Ala Glu Phe Gln Arg Leu Lys Gln Ala Ala Ile Ala Glu | | |
| 1555 | 1560 | 1565 |
| Lys Asn Arg Ala Arg Val Leu Gly Gly Leu Pro Asp Val Val Thr Ile | | |
| 1570 | 1575 | 1580 |
| Gln Glu Gly Lys Ala Leu Asn Leu Thr Cys Asn Val Trp Gly Asp Pro | | |
| 1585 | 1590 | 1595 |
| Pro Pro Glu Val Ser Trp Leu Lys Asn Glu Lys Ala Leu Ala Ser Asp | | |

1605 1610 1615
 Gly His Cys Asn Leu Lys Phe Glu Ala Gly Arg Thr Ala Tyr Phe Thr
 1620 1625 1630
 Ile Asn Gly Val Ser Thr Ala Asp Ser Gly Lys Tyr Gly Leu Val Val
 1635 1640 1645
 Lys Asn Lys Tyr Gly Ser Glu Thr Ser Asp Phe Thr Val Ser Val Phe
 1650 1655 1660
 Ile Pro Glu Glu Glu Ala Arg Met Ala Ala Leu Glu Ser Leu Lys Gly
 1665 1670 1675 1680
 Gly Lys Lys Ala Lys
 1685

<210> 3201

<211> 1309

<212> PRT

<213> Homo sapiens

<400> 3201

Met Gly Thr His His His Ala Gln Leu Ile Phe Val Phe Leu Val Glu
 1 5 10 15
 Met Arg Phe His Arg Val Asp Gln Ala Gly Leu Glu Leu Leu Thr Ser
 20 25 30
 Gly Asn Ser Pro Ala Ser Ala Ser Arg Ser Ala Glu Ile Thr Val Val
 35 40 45
 Ser Gln His Ala Gln Pro Gly Phe Leu Tyr Gln Trp Leu Glu Ala Asp
 50 55 60
 Arg His Gly Lys Ser Gln Gly Ala Ala Asn Thr Thr Ser Gly Glu Asn
 65 70 75 80
 Phe Asp Gln Ser Pro Leu Lys Arg Thr Phe Lys Ser Lys Val Leu Ala
 85 90 95
 His Tyr Pro Gln Asn Ile Glu Trp Asn Pro Phe Asp Gln Asp Ala Val
 100 105 110
 Asn Met Leu Cys Met Pro Lys Gly Leu Ser Phe Arg Thr Gln Thr Asp
 115 120 125

Asn Lys Asp Pro Gln Phe His Ser Phe Ile Ile Thr Arg Glu Asp Gly
 130 135 140
 Ser Arg Thr Tyr Gly Phe Val Leu Thr Phe Tyr Glu Glu Val Thr Ser
 145 150 155 160
 Lys Gln Ile Cys Thr Ala Met Gln Thr Leu Tyr Gln Met His Asn Ala
 165 170 175
 Glu His Tyr Ser Ser Val Tyr Ala Ser Ser Ser Cys Ser Met Asp Ser
 180 185 190
 Leu Ala Ser Ser Leu Asp Glu Gly Asp Thr Thr Ser Leu Leu Lys Leu
 195 200 205
 Gln Arg Tyr Asn Ser Tyr Asp Ile Ser Arg Asp Thr Leu Tyr Val Ser
 210 215 220
 Lys Ser Ile Cys Leu Ile Thr Pro Leu Pro Phe Met Gln Ala Cys Lys
 225 230 235 240
 Lys Phe Leu Ile Gln Leu Tyr Lys Ala Val Thr Ser Gln Gln Pro Pro
 245 250 255
 Pro Leu Pro Leu Glu Ser Tyr Ile His Asn Ile Leu Tyr Glu Val Pro
 260 265 270
 Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Tyr Gly Val Tyr Glu Pro
 275 280 285
 Val Ile Cys Gln Arg Pro Gly Pro Ser Glu Leu Pro Leu Ser Asp Tyr
 290 295 300
 Pro Leu Arg Glu Ala Phe Glu Leu Leu Gly Leu Glu Asn Leu Val Gln
 305 310 315 320
 Val Phe Thr Cys Val Leu Leu Glu Met Gln Ile Leu Leu Tyr Ser Gln
 325 330 335
 Asp Tyr Gln Arg Leu Met Thr Val Ala Glu Gly Ile Thr Thr Leu Leu
 340 345 350
 Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile Leu Pro Ala Ser
 355 360 365
 Leu Leu His Phe Leu Asp Ala Pro Val Pro Tyr Leu Met Gly Leu Gln
 370 375 380
 Ser Lys Glu Gly Thr Asp Arg Ser Lys Leu Glu Leu Pro Gln Glu Ala
 385 390 395 400
 Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile Glu Leu Pro Glu
 405 410 415

Glu Phe Pro Gln Phe Pro Asn Lys Val Asp Phe Ile Gln Glu Leu Ser
 420 425 430
 Glu Val Leu Val Gln Phe Gly Ile Pro Pro Glu Gly Ser Leu His Cys
 435 440 445
 Ser Glu Ser Thr Ser Lys Leu Lys Asn Met Val Leu Lys Asp Leu Val
 450 455 460
 Asn Asp Lys Lys Asn Gly Asn Val Cys Thr Asn Asn Ile Ser Met Tyr
 465 470 475 480
 Glu Leu Leu Lys Gly Asn Glu Thr Ile Ala Arg Leu Gln Ala Leu Ala
 485 490 495
 Lys Arg Thr Gly Val Ala Val Glu Lys Met Asp Leu Ser Ala Ser Leu
 500 505 510
 Gly Glu Lys Asp Lys Asp Leu Lys Leu His Cys Glu Glu Ala Glu Leu
 515 520 525
 Arg Asp Tyr Gln Leu Asn Val Gln Leu Arg Glu Val Phe Ala Asn Arg
 530 535 540
 Phe Thr Gln Met Phe Ala Asp Tyr Glu Ala Phe Val Ile Gln Thr Ala
 545 550 555 560
 Gln Asp Met Glu Ser Trp Leu Thr Asn Arg Glu Gln Met Gln Asn Phe
 565 570 575
 Asp Lys Ala Ser Phe Leu Ser Asp Gln Pro Glu Pro Tyr Leu Pro Phe
 580 585 590
 Leu Ser Arg Phe Ile Glu Thr Gln Met Phe Ala Thr Phe Ile Asp Asn
 595 600 605
 Lys Ile Met Ser Gln Trp Glu Glu Lys Asp Pro Leu Leu Arg Val Phe
 610 615 620
 Asp Thr Arg Ile Asp Lys Ile Arg Leu Tyr Asn Val Arg Ala Pro Thr
 625 630 635 640
 Leu Arg Thr Ser Ile Tyr Gln Lys Cys Ser Thr Leu Lys Glu Ala Ala
 645 650 655
 Gln Ser Ile Glu Gln Arg Leu Met Lys Met Asp His Thr Ala Ile His
 660 665 670
 Pro His Leu Leu Asp Met Lys Ile Gly Gln Gly Lys Tyr Glu Gln Gly
 675 680 685
 Phe Phe Pro Lys Leu Gln Ser Asp Val Leu Ala Thr Gly Pro Thr Ser
 690 695 700

Asn Asn Arg Trp Val Ser Arg Ser Ala Thr Ala Gln Arg Arg Lys Glu
 705 710 715 720
 Arg Leu Arg Gln His Ser Glu His Val Gly Leu Asp Asn Asp Leu Arg
 725 730 735
 Glu Lys Tyr Met Gln Glu Ala Arg Ser Leu Gly Lys Asn Leu Arg Gln
 740 745 750
 Pro Lys Leu Ser Asp Leu Ser Pro Ala Val Ile Ala Gln Thr Asn Cys
 755 760 765
 Lys Phe Val Glu Gly Leu Leu Lys Glu Cys Arg Met Lys Thr Lys Arg
 770 775 780
 Met Leu Val Glu Lys Met Gly His Glu Ala Val Glu Leu Gly His Gly
 785 790 795 800
 Glu Ala Asn Ile Thr Gly Leu Glu Glu Asn Thr Leu Ile Ala Ser Leu
 805 810 815
 Cys Asp Leu Leu Glu Arg Ile Trp Ser His Gly Leu Gln Val Lys Gln
 820 825 830
 Gly Lys Ser Ala Leu Trp Ser His Leu Ile Gln Phe Gln Asp Arg Glu
 835 840 845
 Glu Lys Gln Glu His Leu Ala Glu Ser Pro Val Ala Leu Gly Pro Glu
 850 855 860
 Arg Arg Lys Ser Asp Ser Gly Val Met Leu Pro Thr Leu Arg Val Ser
 865 870 875 880
 Leu Ile Gln Asp Met Arg His Ile Gln Asn Met Ser Glu Ile Lys Thr
 885 890 895
 Asp Val Gly Arg Ala Arg Ala Trp Ile Arg Leu Ser Leu Glu Lys Lys
 900 905 910

 Leu Leu Ser Gln His Leu Lys Gln Leu Leu Ser Asn Gln Pro Leu Thr
 915 920 925
 Lys Lys Leu Tyr Lys Arg Tyr Ala Phe Leu Arg Cys Glu Glu Glu Arg
 930 935 940
 Glu Gln Phe Leu Tyr His Leu Leu Ser Leu Asn Ala Val Asp Tyr Phe
 945 950 955 960
 Cys Phe Thr Ser Val Phe Thr Thr Ile Met Ile Pro Tyr Arg Ser Val
 965 970 975
 Ile Ile Pro Ile Lys Lys Leu Ser Asn Ala Ile Ile Thr Ser Asn Pro

| | | | |
|---|------|------|------|
| 980 | 985 | 990 | |
| Trp Ile Cys Val Ser Gly Glu Leu Gly Asp Thr Gly Val Met Gln Ile | | | |
| 995 | 1000 | 1005 | |
| Pro Lys Asn Leu Leu Glu Met Thr Phe Glu Cys Gln Asn Leu Gly Lys | | | |
| 1010 | 1015 | 1020 | |
| Leu Thr Thr Val Gln Ile Gly His Asp Asn Ser Gly Leu Leu Ala Lys | | | |
| 1025 | 1030 | 1035 | 1040 |
| Trp Leu Val Asp Cys Val Met Val Arg Asn Glu Ile Thr Gly His Thr | | | |
| 1045 | 1050 | 1055 | |
| Tyr Arg Phe Pro Cys Gly Arg Trp Leu Gly Lys Gly Ile Asp Asp Gly | | | |
| 1060 | 1065 | 1070 | |
| Ser Leu Glu Arg Ile Leu Ile Gly Glu Leu Met Thr Ser Ala Ser Asp | | | |
| 1075 | 1080 | 1085 | |
| Glu Asp Leu Val Lys Gln Cys Arg Thr Pro Pro Gln Gln Lys Ser Pro | | | |
| 1090 | 1095 | 1100 | |
| Thr Thr Ala Arg Arg Leu Ser Ile Thr Ser Leu Thr Gly Lys Asn Asn | | | |
| 1105 | 1110 | 1115 | 1120 |
| Lys Pro Asn Ala Gly Gln Ile Gln Glu Gly Ile Gly Glu Ala Val Asn | | | |
| 1125 | 1130 | 1135 | |
| Asn Ile Val Lys His Phe His Lys Pro Glu Lys Glu Arg Gly Ser Leu | | | |
| 1140 | 1145 | 1150 | |
| Thr Val Leu Leu Cys Gly Glu Asn Gly Leu Val Ala Ala Leu Glu Gln | | | |
| 1155 | 1160 | 1165 | |
| Val Phe His His Gly Phe Lys Ser Ala Arg Ile Phe His Lys Asn Val | | | |
| 1170 | 1175 | 1180 | |
| Phe Ile Trp Asp Phe Ile Glu Lys Val Val Ala Tyr Phe Glu Thr Thr | | | |
| 1185 | 1190 | 1195 | 1200 |
| Asp Gln Ile Leu Asp Asn Glu Asp Asp Val Leu Ile Gln Lys Ser Ser | | | |
| 1205 | 1210 | 1215 | |
| Cys Lys Thr Phe Cys His Tyr Val Asn Ala Ile Asn Thr Ala Pro Arg | | | |
| 1220 | 1225 | 1230 | |
| Asn Ile Gly Lys Asp Gly Lys Phe Gln Ile Leu Val Cys Leu Gly Thr | | | |
| 1235 | 1240 | 1245 | |
| Arg Asp Arg Leu Leu Pro Gln Trp Ile Pro Leu Leu Ala Glu Cys Pro | | | |
| 1250 | 1255 | 1260 | |
| Ala Ile Thr Arg Met Tyr Glu Glu Ser Ala Leu Leu Arg Asp Arg Met | | | |

1265 1270 1275 1280
 Thr Val Asn Ser Leu Ile Arg Ile Leu Gln Thr Ile Gln Asp Phe Thr
 1285 1290 1295
 Ile Val Leu Glu Gly Ser Leu Ile Lys Gly Val Asp Val
 1300 1305

<210> 3202

<211> 1266

<212> PRT

<213> Homo sapiens

<400> 3202

Met Tyr Glu Leu Val Tyr Trp Ala Ala Glu Asp Glu Asp Gln Gln His
 1 5 10 15
 Lys Val Thr Phe Asp Pro Thr Ser Ser Tyr Thr Leu Glu Asp Leu Lys
 20 25 30
 Pro Asp Thr Leu Tyr Arg Phe Gln Leu Ala Ala Arg Ser Asp Met Gly
 35 40 45
 Val Gly Val Phe Thr Pro Thr Ile Glu Ala Arg Thr Ala Gln Ser Met
 50 55 60
 Pro Ser Gly Pro Pro Arg Lys Val Glu Val Glu Pro Leu Asn Ser Thr
 65 70 75 80
 Ala Val His Val Tyr Trp Lys Leu Pro Val Pro Ser Lys Gln His Gly
 85 90 95
 Gln Ile Arg Gly Tyr Gln Val Thr Tyr Val Arg Leu Glu Asn Gly Glu
 100 105 110
 Pro Arg Gly Leu Pro Ile Ile Gln Asp Val Met Leu Ala Glu Ala Gln
 115 120 125
 Glu Thr Thr Ile Ser Gly Leu Thr Pro Glu Thr Thr Tyr Ser Val Thr
 130 135 140
 Val Ala Ala Tyr Thr Thr Lys Gly Asp Gly Ala Arg Ser Lys Pro Lys
 145 150 155 160
 Ile Val Thr Thr Thr Gly Ala Val Pro Gly Arg Pro Thr Met Met Ile
 165 170 175
 Ser Thr Thr Ala Met Asn Thr Ala Leu Leu Gln Trp His Pro Pro Lys

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Glu Leu Pro Gly Glu Leu Leu Gly Tyr Arg Leu Gln Tyr Cys Arg Ala | | |
| 195 | 200 | 205 |
| Asp Glu Ala Arg Pro Asn Thr Ile Asp Phe Gly Lys Asp Asp Gln His | | |
| 210 | 215 | 220 |
| Phe Thr Val Thr Gly Leu His Lys Gly Thr Thr Tyr Ile Phe Arg Leu | | |
| 225 | 230 | 235 |
| Ala Ala Lys Asn Arg Ala Gly Leu Gly Glu Glu Phe Glu Lys Glu Ile | | |
| 245 | 250 | 255 |
| Arg Thr Pro Glu Asp Leu Pro Ser Gly Phe Pro Gln Asn Leu His Val | | |
| 260 | 265 | 270 |
| Thr Gly Leu Thr Thr Ser Thr Thr Glu Leu Ala Trp Asp Pro Pro Val | | |
| 275 | 280 | 285 |
| Leu Ala Glu Arg Asn Gly Arg Ile Ile Ser Tyr Thr Val Val Phe Arg | | |
| 290 | 295 | 300 |
| Asp Ile Asn Ser Gln Gln Glu Leu Gln Asn Ile Thr Thr Asp Thr Arg | | |
| 305 | 310 | 315 |
| Phe Thr Leu Thr Gly Leu Lys Pro Asp Thr Thr Tyr Asp Ile Lys Val | | |
| 325 | 330 | 335 |
| Arg Ala Trp Thr Ser Lys Gly Ser Gly Pro Leu Ser Pro Ser Ile Gln | | |
| 340 | 345 | 350 |
| Ser Arg Thr Met Pro Val Glu Gln Val Phe Ala Lys Asn Phe Arg Val | | |
| 355 | 360 | 365 |
| Ala Ala Ala Met Lys Thr Ser Val Leu Leu Ser Trp Glu Val Pro Asp | | |
| 370 | 375 | 380 |
| Ser Tyr Lys Ser Ala Val Pro Phe Lys Ile Leu Tyr Asn Gly Gln Ser | | |
| 385 | 390 | 395 |
| Val Glu Val Asp Gly His Ser Met Arg Lys Leu Ile Ala Asp Leu Gln | | |
| 405 | 410 | 415 |
| Pro Asn Thr Glu Tyr Ser Phe Val Leu Met Asn Arg Gly Ser Ser Ala | | |
| 420 | 425 | 430 |
| Gly Gly Leu Gln His Leu Val Ser Ile Arg Thr Ala Pro Asp Leu Leu | | |
| 435 | 440 | 445 |
| Pro His Lys Pro Leu Pro Ala Ser Ala Tyr Ile Glu Asp Gly Arg Phe | | |
| 450 | 455 | 460 |
| Asp Leu Ser Met Pro His Val Gln Asp Pro Ser Leu Val Arg Trp Phe | | |

465 470 475 480
 Tyr Ile Val Val Val Pro Ile Asp Arg Val Gly Gly Ser Met Leu Thr
 485 490 495
 Pro Arg Trp Ser Thr Pro Glu Glu Leu Glu Leu Asp Glu Leu Leu Glu
 500 505 510
 Ala Ile Glu Gln Gly Gly Glu Glu Gln Arg Arg Arg Arg Arg Gln Ala
 515 520 525
 Glu Arg Leu Lys Pro Tyr Val Ala Ala Gln Leu Asp Val Leu Pro Glu
 530 535 540
 Thr Phe Thr Leu Gly Asp Lys Lys Asn Tyr Arg Gly Phe Tyr Asn Arg
 545 550 555 560
 Pro Leu Ser Pro Asp Leu Ser Tyr Gln Cys Phe Val Leu Ala Ser Leu
 565 570 575
 Lys Glu Pro Met Asp Gln Lys Arg Tyr Ala Ser Ser Pro Tyr Ser Asp
 580 585 590
 Glu Ile Val Val Gln Val Thr Pro Ala Gln Gln Gln Glu Glu Pro Glu
 595 600 605
 Met Leu Trp Val Thr Gly Pro Val Leu Ala Val Ile Leu Ile Ile Leu
 610 615 620
 Ile Val Ile Ala Ile Leu Leu Phe Lys Arg Lys Arg Thr His Ser Pro
 625 630 635 640
 Ser Ser Lys Gly Glu Gln Ser Ile Gly Leu Lys Asp Ser Leu Leu Ala
 645 650 655
 His Ser Ser Asp Pro Val Glu Met Arg Arg Leu Asn Tyr Gln Thr Pro
 660 665 670
 Gly Ser Ser Val Pro Ser Cys Pro Asn Thr Ser Ser Met Arg Asp His
 675 680 685
 Pro Pro Ile Pro Ile Thr Asp Leu Ala Asp Asn Ile Glu Arg Leu Lys
 690 695 700
 Ala Asn Asp Gly Leu Lys Phe Ser Gln Glu Tyr Glu Ser Ile Asp Pro
 705 710 715 720
 Gly Gln Gln Phe Thr Trp Glu Asn Ser Asn Leu Glu Val Asn Lys Pro
 725 730 735
 Lys Asn Arg Tyr Ala Asn Val Ile Ala Tyr Asp His Ser Arg Val Ile
 740 745 750
 Leu Thr Ser Ile Asp Gly Val Pro Gly Ser Asp Tyr Ile Asn Ala Asn

| | | |
|---|------|------|
| 755 | 760 | 765 |
| Tyr Ile Asp Gly Tyr Arg Lys Gln Asn Ala Tyr Ile Ala Thr Gln Gly | | |
| 770 | 775 | 780 |
| Pro Leu Pro Glu Thr Met Gly Asp Phe Trp Arg Met Val Trp Glu Gln | | |
| 785 | 790 | 795 |
| Arg Thr Ala Thr Val Val Met Met Thr Arg Leu Glu Glu Lys Ser Arg | | |
| 805 | 810 | 815 |
| Val Lys Cys Asp Gln Tyr Trp Pro Ala Arg Gly Thr Glu Thr Cys Gly | | |
| 820 | 825 | 830 |
| Leu Ile Gln Val Thr Leu Leu Asp Thr Val Glu Leu Ala Thr Tyr Thr | | |
| 835 | 840 | 845 |
| Val Arg Thr Phe Ala Leu His Lys Ser Gly Ser Ser Glu Lys Arg Glu | | |
| 850 | 855 | 860 |
| Leu Arg Gln Phe Gln Phe Met Ala Trp Pro Asp His Gly Val Pro Glu | | |
| 865 | 870 | 875 |
| Tyr Pro Thr Pro Ile Leu Ala Phe Leu Arg Arg Val Lys Ala Cys Asn | | |
| 885 | 890 | 895 |
| Pro Leu Asp Ala Gly Pro Met Val Val His Cys Ser Ala Gly Val Gly | | |
| 900 | 905 | 910 |
| Arg Thr Gly Cys Phe Ile Val Ile Asp Ala Met Leu Glu Arg Met Lys | | |
| 915 | 920 | 925 |
| His Glu Lys Thr Val Asp Ile Tyr Gly His Val Thr Cys Met Arg Ser | | |
| 930 | 935 | 940 |
| Gln Arg Asn Tyr Met Val Gln Thr Glu Asp Gln Tyr Val Phe Ile His | | |
| 945 | 950 | 955 |
| Glu Ala Leu Leu Glu Ala Ala Thr Cys Gly His Thr Glu Val Pro Ala | | |
| 965 | 970 | 975 |
| Arg Asn Leu Tyr Ala His Ile Gln Lys Leu Gly Gln Val Pro Pro Gly | | |
| 980 | 985 | 990 |
| Glu Ser Val Thr Ala Met Glu Leu Glu Phe Lys Leu Leu Ala Ser Ser | | |
| 995 | 1000 | 1005 |
| Lys Ala His Thr Ser Arg Phe Ile Ser Ala Asn Leu Pro Cys Asn Lys | | |
| 1010 | 1015 | 1020 |
| Phe Lys Asn Arg Leu Val Asn Ile Met Pro Tyr Glu Leu Thr Arg Val | | |
| 1025 | 1030 | 1035 |
| Cys Leu Gln Pro Ile Arg Gly Val Glu Gly Ser Asp Tyr Ile Asn Ala | | |

| | | |
|---|------|------|
| 1045 | 1050 | 1055 |
| Ser Phe Leu Asp Gly Tyr Arg Gln Gln Lys Ala Tyr Ile Ala Thr Gln | | |
| 1060 | 1065 | 1070 |
| Gly Pro Leu Ala Glu Ser Thr Glu Asp Phe Trp Arg Met Leu Trp Glu | | |
| 1075 | 1080 | 1085 |
| His Asn Ser Thr Ile Ile Val Met Leu Thr Lys Leu Arg Glu Met Gly | | |
| 1090 | 1095 | 1100 |
| Arg Glu Lys Cys His Gln Tyr Trp Pro Ala Glu Arg Ser Ala Arg Tyr | | |
| 1105 | 1110 | 1115 |
| Gln Tyr Phe Val Val Asp Pro Met Ala Glu Tyr Asn Met Pro Gln Tyr | | |
| 1125 | 1130 | 1135 |
| Ile Leu Arg Glu Phe Lys Val Thr Asp Ala Arg Asp Gly Gln Ser Arg | | |
| 1140 | 1145 | 1150 |
| Thr Ile Arg Gln Ser Gln Phe Thr Asp Trp Pro Glu Gln Gly Val Pro | | |
| 1155 | 1160 | 1165 |
| Lys Thr Gly Glu Gly Phe Ile Asp Phe Ile Gly Gln Val His Lys Thr | | |
| 1170 | 1175 | 1180 |
| Lys Glu Gln Phe Gly Gln Asp Gly Pro Ile Thr Val His Cys Ser Ala | | |
| 1185 | 1190 | 1195 |
| Gly Val Gly Arg Thr Gly Val Phe Ile Thr Leu Ser Ile Val Leu Glu | | |
| 1205 | 1210 | 1215 |
| Arg Met Arg Tyr Glu Gly Val Val Asp Met Phe Gln Thr Val Lys Thr | | |
| 1220 | 1225 | 1230 |
| Leu Arg Thr Gln Arg Pro Ala Met Val Gln Thr Glu Asp Gln Tyr Gln | | |
| 1235 | 1240 | 1245 |
| Leu Cys Tyr Arg Ala Ala Leu Glu Tyr Leu Gly Ser Phe Asp His Tyr | | |
| 1250 | 1255 | 1260 |
| Ala Thr | | |
| 1265 | | |

<210> 3203

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3203

Met Cys Ser Arg Ser Ser His Gly Gly Ala Gln Arg Ser Gly Leu Arg
 1 5 10 15
 Gly Asp Ala Cys Thr Val Gln Glu Arg Gly Ala Pro Cys Arg Ala Ser
 20 25 30
 Ala Val Gly Gly Ala Gln Ala Pro Arg Val Gly Ala Gly Val Val Ser
 35 40 45
 Thr Val His Ile Cys Thr Tyr Val Arg Thr Arg Leu Trp Gly Thr Glu
 50 55 60
 Gly Pro Phe Ala Leu Pro Gly Asp Trp Ser Arg Val Ala Gly Pro Thr
 65 70 75 80
 Cys Thr Ala Cys Pro Gln Lys Gly Gln Gly Lys Ala Ser Ser Ile Pro
 85 90 95
 Leu Gly Pro Gln Pro Pro Thr Cys Leu Gly Lys His Gly Ser Trp Arg
 100 105 110
 Pro Arg Glu Ala Thr Thr Leu Leu Ser Arg Gln Ala Pro Asn
 115 120 125

<210> 3204

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3204

Met Leu Arg Phe Ser His Cys Arg Leu Cys Thr Ile Ser Ile Cys Pro
 1 5 10 15
 Val Thr Cys Asn Ala Gln Trp Ile Thr Cys Leu Arg Trp Cys Leu Pro
 20 25 30
 Ser Cys Ser Thr Ile Lys Leu Phe Phe Ser Phe Leu Leu Leu Ile Arg
 35 40 45
 Ile Leu Trp Gly Gly Thr Leu Lys Val Tyr Lys Asn Leu Ile Val His
 50 55 60
 Pro Thr Phe Ser Ser Phe Thr Tyr Leu Phe Ile Ser Val Trp Thr His
 65 70 75 80
 Asp Phe Gln Cys Tyr Ser Met Gly Tyr Asn Pro Leu Leu Ser Leu Phe
 85 90 95

Ile Leu Met Leu Arg Ser Ser Pro Ile Trp Pro Met Gly Pro Pro Leu
 100 105 110
 Ser Ser Phe Thr His Ser Lys Lys Glu Lys Lys Lys Phe Pro Met Ile
 115 120 125
 Thr

<210> 3205

<211> 1281

<212> PRT

<213> Homo sapiens

<400> 3205

Met Ile Ser Thr Leu Ala Thr Phe Pro Pro Phe Leu His Lys Asp Ile
 1 5 10 15
 Ile Glu Tyr Leu Ser Thr Ser Phe Leu Pro Met Ala Ile Leu Gly Ser
 20 25 30
 Ser Arg Arg Glu Gly Val Pro Ala His Val Asn Leu Ser Ala Ser Ser
 35 40 45
 Met Leu Met Ile Ala Met Gln Tyr Thr Ser Asn Pro Val Tyr His Cys
 50 55 60
 Gln Leu Leu Glu Cys Leu Met Lys Tyr Lys Gln Glu Val Trp Lys Asp
 65 70 75 80
 Leu Leu Tyr Val Ile Ala Tyr Gly Pro Ser Gln Val Lys Pro Pro Ala
 85 90 95
 Val Gln Met Leu Phe His Tyr Trp Pro Asn Leu Lys Pro Pro Gly Ala
 100 105 110
 Ile Ser Glu Tyr Arg Gly Leu Gln Tyr Thr Ala Trp Asn Pro Ile His
 115 120 125
 Cys Gln His Ile Glu Cys His Asn Ala Ile Asn Lys Pro Ala Val Lys
 130 135 140
 Met Cys Ile Asp Pro Ser Leu Ser Val Ala Leu Gly Asp Lys Pro Pro
 145 150 155 160
 Pro Leu Tyr Leu Cys Glu Glu Cys Ser Glu Arg Ile Ala Gly Asp His
 165 170 175

Ser Glu Trp Leu Ile Asp Val Leu Leu Pro Gln Ala Glu Ile Ser Ala
 180 185 190
 Ile Cys Gln Lys Lys Asn Cys Ser Ser His Val Arg Arg Ala Val Val
 195 200 205
 Thr Cys Phe Ser Ala Gly Cys Cys Gly Arg His Gly Asn Arg Pro Val
 210 215 220
 Arg Tyr Cys Lys Arg Cys His Ser Asn His His Ser Asn Glu Val Gly
 225 230 235 240
 Ala Ala Ala Glu Thr His Leu Tyr Gln Thr Ser Pro Pro Pro Ile Asn
 245 250 255
 Thr Arg Glu Cys Gly Ala Glu Glu Leu Val Cys Ala Val Glu Ala Val
 260 265 270
 Ile Ser Leu Leu Lys Glu Ala Glu Phe His Ala Glu Gln Arg Glu His
 275 280 285
 Glu Leu Asn Arg Arg Arg Gln Leu Gly Leu Ser Ser Ser His His Ser
 290 295 300
 Leu Asp Asn Ala Asp Phe Asp Asn Lys Asp Asp Asp Arg His Asp Gln
 305 310 315 320
 Arg Leu Leu Ser Gln Phe Gly Ile Trp Phe Leu Val Ser Leu Cys Thr
 325 330 335
 Pro Ser Glu Asn Thr Pro Thr Glu Ser Leu Ala Arg Leu Val Ala Met
 340 345 350
 Val Phe Gln Trp Phe His Ser Thr Ala Tyr Met Met Asp Asp Glu Val
 355 360 365
 Gly Ser Leu Val Glu Lys Leu Lys Pro Gln Phe Val Thr Lys Trp Leu
 370 375 380
 Lys Thr Val Cys Asp Val Arg Phe Asp Val Met Val Met Cys Leu Leu
 385 390 395 400
 Pro Lys Pro Met Glu Phe Ala Arg Val Gly Gly Tyr Trp Asp Lys Ser
 405 410 415
 Cys Ser Thr Val Thr Gln Leu Lys Glu Gly Leu Asn Arg Ile Leu Cys
 420 425 430
 Leu Ile Pro Tyr Asn Val Ile Asn Gln Ser Val Trp Glu Cys Ile Met
 435 440 445
 Pro Glu Trp Leu Glu Ala Ile Arg Thr Glu Val Pro Asp Asn Gln Leu
 450 455 460

Lys Glu Phe Arg Glu Val Leu Ser Lys Met Phe Asp Ile Glu Leu Cys
 465 470 475 480
 Pro Leu Pro Phe Ser Met Glu Glu Met Phe Gly Phe Ile Ser Cys Arg
 485 490 495
 Phe Thr Gly Tyr Pro Ser Ser Val Gln Glu Gln Ala Leu Leu Trp Leu
 500 505 510
 His Val Leu Ser Glu Leu Asp Ile Met Val Pro Leu Gln Leu Leu Ile
 515 520 525
 Ser Met Phe Ser Asp Gly Val Asn Ser Val Lys Glu Leu Ala Asn Gln
 530 535 540
 Arg Lys Ser Arg Val Ser Glu Leu Ala Gly Asn Leu Ala Ser Arg Arg
 545 550 555 560
 Val Ser Val Ala Ser Asp Pro Gly Arg Arg Val Gln His Asn Met Leu
 565 570 575
 Ser Pro Phe His Ser Pro Phe Gln Ser Pro Phe Arg Ser Pro Leu Arg
 580 585 590
 Ser Pro Phe Arg Ser Pro Phe Lys Asn Phe Gly His Pro Gly Gly Arg
 595 600 605
 Thr Ile Asp Phe Asp Cys Glu Asp Asp Glu Met Asn Leu Asn Cys Phe
 610 615 620
 Ile Leu Met Phe Asp Leu Leu Leu Lys Gln Met Glu Leu Gln Asp Asp
 625 630 635 640
 Gly Ile Thr Met Gly Leu Glu His Ser Leu Ser Lys Asp Ile Ile Ser
 645 650 655
 Ile Ile Asn Asn Val Phe Gln Ala Pro Trp Gly Gly Ser His Thr Cys
 660 665 670
 Gln Lys Asp Glu Lys Ala Ile Glu Cys Asn Leu Cys Gln Ser Ser Ile
 675 680 685
 Leu Cys Tyr Gln Leu Ala Cys Glu Leu Leu Glu Arg Leu Ala Pro Lys
 690 695 700
 Glu Glu Ser Arg Leu Val Glu Pro Thr Asp Ser Leu Glu Asp Ser Leu
 705 710 715 720
 Leu Ser Ser Arg Pro Glu Phe Ile Ile Gly Pro Glu Gly Glu Glu Glu
 725 730 735
 Glu Asn Pro Ala Ser Lys His Gly Glu Asn Pro Gly Asn Cys Thr Glu
 740 745 750

Pro Val Glu His Ala Ala Val Lys Asn Asp Thr Glu Arg Lys Phe Cys
 755 760 765
 Tyr Gln Gln Leu Pro Val Thr Leu Arg Leu Ile Tyr Thr Ile Phe Gln
 770 775 780
 Glu Met Ala Lys Phe Glu Glu Pro Asp Ile Leu Phe Asn Met Leu Asn
 785 790 795 800
 Cys Leu Lys Ile Leu Cys Leu His Gly Glu Cys Leu Tyr Ile Ala Arg
 805 810 815
 Lys Asp His Pro Gln Phe Leu Ala Tyr Ile Gln Asp His Met Leu Ile
 820 825 830
 Ala Ser Leu Trp Arg Val Val Lys Ser Glu Phe Ser Gln Leu Ser Ser
 835 840 845
 Leu Ala Val Pro Leu Leu Leu His Ala Leu Ser Leu Pro His Gly Ala
 850 855 860
 Asp Ile Phe Trp Thr Ile Ile Asn Gly Asn Phe Asn Ser Lys Asp Trp
 865 870 875 880
 Lys Met Arg Phe Glu Ala Val Glu Lys Val Ala Val Ile Cys Arg Phe
 885 890 895
 Leu Asp Ile His Ser Val Thr Lys Asn His Leu Leu Lys Tyr Ser Leu
 900 905 910
 Ala His Ala Phe Cys Cys Phe Leu Thr Ala Val Glu Asp Val Asn Pro
 915 920 925
 Ala Val Ala Thr Arg Ala Gly Leu Leu Leu Asp Thr Ile Lys Arg Pro
 930 935 940
 Ala Leu Gln Gly Leu Cys Leu Cys Leu Asp Phe Gln Phe Asp Thr Val
 945 950 955 960
 Val Lys Asp Arg Pro Thr Ile Leu Ser Lys Leu Leu Leu Leu His Phe
 965 970 975
 Leu Lys Gln Asp Ile Pro Ala Leu Ser Trp Glu Phe Phe Val Asn Arg
 980 985 990
 Phe Glu Thr Leu Ser Leu Glu Ala Gln Leu His Leu Asp Cys Asn Lys
 995 1000 1005
 Glu Phe Pro Phe Pro Thr Thr Ile Thr Ala Val Arg Thr Asn Val Ala
 1010 1015 1020
 Asn Leu Ser Asp Ala Ala Leu Trp Lys Ile Lys Arg Ala Arg Phe Ala
 1025 1030 1035 1040

Arg Asn Arg Gln Lys Ser Val Arg Ser Leu Arg Asp Ser Val Lys Gly
 1045 1050 1055
 Pro Val Glu Ser Lys Arg Ala Leu Ser Leu Pro Glu Thr Leu Thr Ser
 1060 1065 1070
 Lys Ile Arg Gln Gln Ser Pro Glu Asn Asp Asn Thr Ile Lys Asp Leu
 1075 1080 1085
 Leu Pro Glu Asp Ala Gly Ile Asp His Gln Thr Val His Gln Leu Ile
 1090 1095 1100
 Thr Val Pro Met Lys Phe Met Ala Lys Asp Glu Ser Ser Ala Glu Ser
 1105 1110 1115 1120
 Asp Ile Ser Ser Ala Lys Ala Phe Asn Thr Val Lys Arg His Leu Tyr
 1125 1130 1135
 Val Leu Leu Gly Tyr Asp Gln Gln Glu Gly Cys Phe Met Ile Ala Pro
 1140 1145 1150
 Gln Lys Met Arg Leu Ser Thr Cys Phe Asn Ala Phe Ile Ala Gly Ile
 1155 1160 1165
 Ala Gln Val Met Asp Tyr Asn Ile Asn Leu Gly Lys His Leu Leu Pro
 1170 1175 1180
 Leu Val Val Gln Val Leu Lys Tyr Cys Ser Cys Pro Gln Leu Arg His
 1185 1190 1195 1200
 Tyr Phe Gln Gln Pro Pro Arg Cys Ser Leu Trp Ser Leu Lys Pro His
 1205 1210 1215
 Ile Arg Gln Met Trp Leu Lys Ala Leu Leu Val Ile Leu Tyr Lys Tyr
 1220 1225 1230
 Pro Tyr Arg Asp Cys Asp Ile Ser Lys Ile Leu Leu His Leu Ile His
 1235 1240 1245
 Ile Thr Val Asn Thr Leu Asn Ala Gln Tyr His Ser Cys Lys Pro His
 1250 1255 1260
 Ala Thr Ala Gly Pro Leu Tyr Ser Asp Asn Ser Asn Ile Ser Arg Tyr
 1265 1270 1275 1280
 Ser

<210> 3206

<211> 534

<212> PRT

<213> Homo sapiens

<400> 3206

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Met Ile Ser Cys Ala Glu Gln Arg Ser Arg Gln Gly Glu Ala Gly Arg
 1             5             10             15
Gly Pro Ala Pro Val Ala Pro Ala Phe Leu Pro Leu Trp Leu Pro Arg
          20             25             30
Gly Cys Ser Gly Ile Leu Ser Val Pro Ala Val Ala Met His Ser Ala
          35             40             45
Gly Thr Pro Arg Ala Glu Ser Pro Met Ser Arg Gln Glu Lys Asp Ala
          50             55             60
Glu Leu Asp Arg Arg Ile Val Ala Leu Arg Lys Lys Asn Gln Ala Leu
          65             70             75             80
Leu Arg Arg Tyr Gln Glu Ile Gln Glu Asp Arg Arg Gln Ala Glu Gln
          85             90             95
Gly Gly Met Ala Val Thr Thr Pro Ala Leu Leu Gln Pro Asp Gly Leu
          100            105            110
Thr Val Thr Ile Ser Gln Val Pro Gly Glu Lys Arg Val Val Ser Arg
          115            120            125
Asn Trp Ala Arg Gly Thr Cys Gly Pro Arg Val Thr Asn Glu Met Leu
          130            135            140
Glu Asp Glu Asp Ala Glu Asp His Gly Gly Thr Phe Cys Leu Gly Glu
          145            150            155            160
Leu Val Glu Leu Ala Val Thr Met Glu Asn Lys Ala Glu Gly Lys Arg
          165            170            175
Ile Val Ser Glu Lys Pro Thr Arg Ala Arg Asn Gln Gly Ile Glu Gly
          180            185            190
Ser Pro Gly Gly Arg Val Thr Arg Ser Pro Pro Thr Gln Val Ala Ile
          195            200            205
Ser Ser Asp Ser Ala Arg Lys Gly Ser Trp Glu Pro Trp Ser Arg Pro
          210            215            220
Val Gly Glu Pro Pro Glu Ala Gly Trp Asp Tyr Ala Gln Trp Lys Gln
          225            230            235            240
Glu Arg Glu Gln Ile Asp Leu Ala Arg Leu Ala Arg His Arg Asp Ala
          245            250            255

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Gln Gly Asp Trp Arg Arg Pro Trp Asp Leu Asp Lys Ala Lys Ser Thr
 260 265 270
 Leu Gln Asp Cys Ser Gln Leu Arg Gly Glu Gly Pro Ala Arg Ala Gly
 275 280 285
 Ser Arg Arg Gly Pro Arg Ser His Gln Lys Leu Gln Pro Pro Pro Leu
 290 295 300
 Leu Pro Asp Gly Lys Gly Arg Gly Gly Gln Ala Ser Arg Pro Ser Val
 305 310 315 320
 Ala Pro Ala Thr Gly Ser Lys Ala Arg Gly Lys Glu Arg Leu Thr Gly
 325 330 335
 Arg Ala Arg Arg Trp Asp Met Lys Glu Asp Lys Glu Glu Leu Glu Gly
 340 345 350
 Gln Glu Gly Ser Gln Ser Thr Arg Glu Thr Pro Ser Glu Glu Glu Gln
 355 360 365
 Ala Gln Lys Gln Ser Gly Met Glu Gln Gly Arg Leu Gly Ser Ala Pro
 370 375 380
 Ala Ala Ser Pro Ala Leu Ala Ser Pro Glu Gly Pro Lys Gly Glu Ser
 385 390 395 400
 Val Ala Ser Thr Ala Ser Ser Val Pro Cys Ser Pro Gln Glu Pro Asp
 405 410 415
 Leu Ala Pro Leu Asp Leu Ser Leu Gly Gly Ala Gly Ile Pro Gly Pro
 420 425 430
 Arg Glu Ser Gly Cys Val Leu Gly Leu Arg Pro Gly Ala Gln Glu Ser
 435 440 445
 Pro Val Ser Trp Pro Glu Gly Ser Lys Gln Gln Pro Leu Gly Trp Ser
 450 455 460
 Asn His Gln Ala Glu Leu Glu Val Gln Thr Cys Pro Glu Pro Gln Arg
 465 470 475 480
 Gly Ala Gly Leu Pro Glu Pro Gly Glu Asp Arg Ser Gly Lys Ser Gly
 485 490 495
 Ala Gln Gln Gly Leu Ala Pro Arg Ser Arg Pro Thr Arg Gly Gly Ser
 500 505 510
 Gln Arg Ser Arg Gly Thr Ala Gly Val Arg Arg Arg Thr Gly Arg Pro
 515 520 525
 Gly Pro Ala Gly Arg Cys
 530

<210> 3207

<211> 1375

<212> PRT

<213> Homo sapiens

<400> 3207

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Met Lys Cys Leu Cys Leu Gln Ala Leu Ala Ile Val Tyr Gly Arg Cys
  1             5             10             15
His Glu Glu Ile Gly Pro Phe Thr Asp Thr Arg Tyr Ile Ile Gly Met
      20             25             30
Leu Glu Arg Cys Thr Asp Lys Leu Glu Arg Asp Arg Leu Ile Leu Phe
      35             40             45
Leu Asn Lys Leu Ile Leu Asn Lys Lys Asn Val Lys Asp Leu Met Asp
      50             55             60
Ser Asn Gly Ile Arg Ile Leu Val Asp Leu Leu Thr Leu Ala His Leu
      65             70             75             80
His Val Ser Arg Ala Thr Val Pro Leu Gln Ser Asn Val Ile Glu Ala
      85             90             95
Ala Pro Asp Met Lys Arg Glu Ser Glu Lys Glu Trp Tyr Phe Gly Asn
      100            105            110
Ala Asp Lys Glu Arg Ser Gly Pro Tyr Gly Phe His Glu Met Gln Glu
      115            120            125
Leu Trp Thr Lys Gly Met Leu Asn Ala Lys Thr Arg Cys Trp Ala Gln
      130            135            140
Gly Met Asp Gly Trp Arg Pro Leu Gln Ser Ile Pro Gln Leu Lys Trp
      145            150            155            160
Cys Leu Leu Ala Ser Gly Gln Ala Val Leu Asn Glu Thr Asp Leu Ala
      165            170            175
Thr Leu Ile Leu Asn Met Leu Ile Thr Met Cys Gly Tyr Phe Pro Ser
      180            185            190
Arg Asp Gln Asp Asn Ala Ile Ile Arg Pro Leu Pro Lys Val Lys Arg
      195            200            205
Leu Leu Ser Asp Ser Thr Cys Leu Pro His Ile Ile Gln Leu Leu Leu
      210            215            220

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Thr Phe Asp Pro Thr Leu Val Glu Lys Val Ala Ile Leu Leu Tyr His
 225 230 235 240
 Ile Met Gln Asp Asn Pro Gln Leu Pro Arg Leu Tyr Leu Ser Gly Val
 245 250 255
 Phe Phe Phe Ile Met Met Tyr Thr Gly Ser Asn Val Leu Pro Val Ala
 260 265 270
 Arg Phe Leu Lys Tyr Thr His Thr Lys Gln Ala Phe Lys Ser Glu Glu
 275 280 285
 Thr Lys Gly Gln Asp Ile Phe Gln Arg Ser Ile Leu Gly His Ile Leu
 290 295 300
 Pro Glu Ala Met Val Cys Tyr Leu Glu Asn Tyr Glu Pro Glu Lys Phe
 305 310 315 320
 Ser Glu Ile Phe Leu Gly Glu Phe Asp Thr Pro Glu Ala Ile Trp Ser
 325 330 335
 Ser Glu Met Arg Arg Leu Met Ile Glu Lys Ile Ala Ala His Leu Ala
 340 345 350
 Asp Phe Thr Pro Arg Leu Gln Ser Asn Thr Arg Ala Leu Tyr Gln Tyr
 355 360 365
 Cys Pro Ile Pro Ile Ile Asn Tyr Pro Gln Leu Glu Asn Glu Leu Phe
 370 375 380
 Cys Asn Ile Tyr Tyr Leu Lys Gln Leu Cys Asp Thr Leu Arg Phe Pro
 385 390 395 400
 Asn Trp Pro Ile Lys Asp Pro Val Lys Leu Leu Lys Asp Thr Leu Asp
 405 410 415
 Ala Trp Lys Lys Glu Val Glu Lys Lys-Pro Pro Met Met Ser Ile Asp
 420 425 430
 Asp Ala Tyr Glu Val Leu Asn Leu Pro Gln Gly Gln Gly Pro His Asp
 435 440 445
 Glu Ser Lys Ile Arg Lys Ala Tyr Phe Arg Leu Ala Gln Lys Tyr His
 450 455 460
 Pro Asp Lys Asn Pro Glu Gly Arg Asp Met Phe Glu Lys Val Asn Lys
 465 470 475 480
 Ala Tyr Glu Phe Leu Cys Thr Lys Ser Ala Lys Ile Val Asp Gly Pro
 485 490 495
 Asp Pro Glu Asn Ile Ile Leu Ile Leu Lys Thr Gln Ser Ile Leu Phe
 500 505 510

Asn Arg His Lys Glu Asp Leu Gln Pro Tyr Lys Tyr Ala Gly Tyr Pro
 515 520 525
 Met Leu Ile Arg Thr Ile Thr Met Glu Thr Ser Asp Asp Leu Leu Phe
 530 535 540
 Ser Lys Glu Ser Pro Leu Leu Pro Ala Ala Thr Glu Leu Ala Phe His
 545 550 555 560
 Thr Val Asn Cys Ser Ala Leu Asn Ala Glu Glu Leu Arg Arg Glu Asn
 565 570 575
 Gly Leu Glu Val Leu Gln Glu Ala Phe Ser Arg Cys Val Ala Val Leu
 580 585 590
 Thr Arg Ser Ser Lys Pro Ser Asp Met Ser Val Gln Val Cys Gly Tyr
 595 600 605
 Ile Ser Lys Cys Tyr Ser Val Ala Ala Gln Phe Glu Glu Cys Arg Glu
 610 615 620
 Lys Ile Thr Glu Met Pro Ser Ile Ile Lys Asp Leu Cys Arg Val Leu
 625 630 635 640
 Tyr Phe Gly Lys Ser Ile Pro Arg Val Ala Ala Leu Gly Val Glu Cys
 645 650 655
 Val Ser Ser Phe Ala Val Asp Phe Trp Leu Gln Thr His Leu Phe Gln
 660 665 670
 Ala Gly Ile Leu Trp Tyr Leu Leu Gly Phe Leu Phe Asn Tyr Asp Tyr
 675 680 685
 Thr Leu Glu Glu Ser Gly Ile Gln Lys Ser Glu Glu Thr Asn Gln Gln
 690 695 700
 Glu Val Ala Asn Ser Leu Ala Lys Leu Ser Val His Ala Leu Ser Arg
 705 710 715 720
 Leu Gly Gly Tyr Leu Ala Glu Glu Gln Ala Thr Pro Glu Asn Pro Thr
 725 730 735
 Ile Arg Lys Ser Leu Ala Gly Met Leu Thr Pro Tyr Val Ala Arg Lys
 740 745 750
 Leu Ala Val Ala Ser Val Thr Glu Ile Leu Lys Met Leu Asn Ser Asn
 755 760 765
 Thr Glu Ser Pro Tyr Leu Ile Trp Asn Asn Ser Thr Arg Ala Glu Leu
 770 775 780
 Leu Glu Phe Leu Glu Ser Gln Gln Glu Asn Met Ile Lys Lys Gly Asp
 785 790 795 800

Cys Asp Lys Thr Tyr Gly Ser Glu Phe Val Tyr Ser Asp His Ala Lys
 805 810 815
 Glu Leu Ile Val Gly Glu Ile Phe Val Arg Val Tyr Asn Glu Val Pro
 820 825 830
 Thr Phe Gln Leu Glu Val Pro Lys Ala Phe Ala Ala Ser Leu Leu Asp
 835 840 845
 Tyr Ile Gly Ser Gln Ala Gln Tyr Leu His Thr Phe Met Ala Ile Thr
 850 855 860
 His Ala Ala Lys Val Glu Ser Glu Gln His Gly Asp Arg Leu Pro Arg
 865 870 875 880
 Val Glu Met Ala Leu Glu Ala Leu Arg Asn Val Ile Lys Tyr Asn Pro
 885 890 895
 Gly Ser Glu Ser Glu Cys Ile Gly His Phe Lys Leu Ile Phe Ser Leu
 900 905 910
 Leu Arg Val His Gly Ala Gly Gln Val Gln Gln Leu Ala Leu Glu Val
 915 920 925
 Val Asn Ile Val Thr Ser Asn Gln Asp Cys Val Asn Asn Ile Ala Glu
 930 935 940
 Ser Met Val Leu Ser Ser Leu Leu Ala Leu Leu His Ser Leu Pro Ser
 945 950 955 960
 Ser Arg Gln Leu Val Leu Glu Thr Leu Tyr Ala Leu Thr Ser Ser Thr
 965 970 975
 Lys Ile Ile Lys Glu Ala Met Ala Lys Gly Ala Leu Ile Tyr Leu Leu
 980 985 990
 Asp Met Phe Cys Asn Ser Thr His Pro Gln Val Arg Ala Gln Thr Ala
 995 1000 1005
 Glu Leu Phe Ala Lys Met Thr Ala Asp Lys Leu Ile Gly Pro Lys Val
 1010 1015 1020
 Arg Ile Thr Leu Met Lys Phe Leu Pro Ser Val Phe Met Asp Ala Met
 1025 1030 1035 1040
 Arg Asp Asn Pro Glu Ala Ala Val His Ile Phe Glu Gly Thr His Glu
 1045 1050 1055
 Asn Pro Glu Leu Ile Trp Asn Asp Asn Ser Arg Asp Lys Val Ser Thr
 1060 1065 1070
 Thr Val Arg Glu Met Met Leu Glu His Phe Lys Asn Gln Gln Asp Asn
 1075 1080 1085

Pro Glu Ala Asn Trp Lys Leu Pro Glu Asp Phe Ala Val Val Phe Gly
 1090 1095 1100
 Glu Ala Glu Gly Glu Leu Ala Val Gly Gly Val Phe Leu Arg Ile Phe
 1105 1110 1115 1120
 Ile Ala Gln Pro Ala Trp Val Leu Arg Lys Pro Arg Glu Phe Leu Ile

 1125 1130 1135
 Ala Leu Leu Glu Lys Leu Thr Glu Leu Leu Glu Lys Asn Asn Pro His
 1140 1145 1150
 Gly Glu Thr Leu Glu Thr Leu Thr Met Ala Thr Val Cys Leu Phe Ser
 1155 1160 1165
 Ala Gln Pro Gln Leu Ala Asp Gln Val Pro Pro Leu Gly His Leu Pro
 1170 1175 1180
 Lys Val Ile Gln Ala Met Asn His Arg Asn Asn Ala Ile Pro Lys Ser
 1185 1190 1195 1200
 Ala Ile Arg Val Ile His Ala Leu Ser Glu Asn Glu Leu Cys Val Arg
 1205 1210 1215
 Ala Met Ala Ser Leu Glu Thr Ile Gly Pro Leu Met Asn Gly Met Lys
 1220 1225 1230
 Lys Arg Ala Asp Thr Val Gly Leu Ala Cys Glu Ala Ile Asn Arg Met
 1235 1240 1245
 Phe Gln Lys Glu Gln Ser Glu Leu Val Ala Gln Ala Leu Lys Ala Asp
 1250 1255 1260
 Leu Val Pro Tyr Leu Leu Lys Leu Leu Glu Gly Ile Gly Leu Glu Asn
 1265 1270 1275 1280
 Leu Asp Ser Pro Ala Ala Thr Lys Ala Gln Ile Val Lys Ala Leu Lys
 1285 1290 1295
 Ala Met Thr Arg Ser Leu Gln Tyr Gly Glu Gln Val Asn Glu Ile Leu
 1300 1305 1310
 Cys Arg Ser Ser Val Trp Ser Ala Phe Lys Asp Gln Lys His Asp Leu
 1315 1320 1325
 Phe Ile Ser Glu Ser Gln Thr Ala Gly Tyr Leu Thr Gly Pro Gly Val
 1330 1335 1340
 Ala Gly Tyr Leu Thr Ala Gly Thr Ser Thr Ser Val Met Ser Asn Leu
 1345 1350 1355 1360
 Pro Pro Pro Val Asp His Glu Ala Gly Asp Leu Gly Tyr Gln Thr

1365

1370

1375

<210> 3208

<211> 1745

<212> PRT

<213> Homo sapiens

<400> 3208

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Met Lys Leu Asn Pro Gln Gln Ala Pro Leu Tyr Gly Asp Cys Val Val
  1             5             10             15
Thr Val Leu Leu Ala Glu Glu Asp Lys Ala Glu Asp Asp Val Val Phe
      20             25             30
Tyr Leu Val Phe Leu Gly Ser Thr Leu Arg His Cys Thr Ser Thr Arg
      35             40             45
Lys Val Ser Ser Asp Thr Leu Glu Thr Ile Ala Pro Gly His Asp Cys
      50             55             60
Cys Glu Thr Val Lys Val Gln Leu Cys Ala Ser Lys Glu Gly Leu Pro
      65             70             75             80
Val Phe Val Val Ala Glu Glu Asp Phe His Phe Val Gln Asp Glu Ala
      85             90             95
Tyr Asp Ala Ala Gln Phe Leu Ala Thr Ser Ala Gly Asn Gln Gln Ala
      100            105            110
Leu Asn Phe Thr Arg Phe Leu Asp Gln Ser Gly Pro Pro Ser Gly Asp
      115            120            125
Val Asn Ser Leu Asp Lys Lys Leu Val Leu Ala Phe Arg His Leu Lys
      130            135            140
Leu Pro Thr Glu Trp Asn Val Leu Gly Thr Asp Gln Ser Leu His Asp
      145            150            155            160
Ala Gly Pro Arg Glu Thr Leu Met His Phe Ala Val Arg Leu Gly Leu
      165            170            175
Leu Arg Leu Thr Trp Phe Leu Ser Gln Lys Pro Gly Gly Arg Gly Ala
      180            185            190
Leu Ser Ile His Asn Gln Glu Gly Ala Thr Pro Val Ser Leu Ala Leu
      195            200            205
Glu Arg Gly Tyr His Lys Leu His Gln Leu Leu Thr Glu Glu Asn Ala

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| | | |
|---|-----|-----|
| 210 | 215 | 220 |
| Gly Glu Pro Asp Ser Trp Ser Ser Leu Ser Tyr Glu Ile Pro Tyr Gly | | |
| 225 | 230 | 235 |
| Asp Cys Ser Val Arg His His Arg Glu Leu Asp Ile Tyr Thr Leu Thr | | 240 |
| | 245 | 250 |
| Ser Glu Ser Asp Ser His His Glu His Pro Phe Pro Gly Asp Gly Cys | | 255 |
| | 260 | 265 |
| Thr Gly Pro Ile Phe Lys Leu Met Asn Ile Gln Gln Gln Leu Met Lys | | 270 |
| | 275 | 280 |
| Thr Asn Leu Lys Gln Met Asp Ser Leu Met Pro Leu Met Met Thr Ala | | 285 |
| | 290 | 295 |
| Gln Asp Pro Ser Ser Ala Pro Glu Thr Asp Gly Gln Phe Leu Pro Cys | | 300 |
| 305 | 310 | 315 |
| Ala Pro Glu Pro Thr Asp Pro Gln Arg Leu Ser Ser Ser Glu Glu Thr | | 320 |
| | 325 | 330 |
| Glu Ser Thr Gln Cys Cys Pro Gly Ser Pro Val Ala Gln Thr Glu Ser | | 335 |
| | 340 | 345 |
| Pro Cys Asp Leu Ser Ser Ile Val Glu Glu Glu Asn Thr Asp Arg Ser | | 350 |
| | 355 | 360 |
| Cys Arg Lys Lys Asn Lys Gly Val Glu Arg Lys Gly Glu Glu Val Glu | | 365 |
| | 370 | 375 |
| Pro Ala Pro Ile Val Asp Ser Gly Thr Val Ser Asp Gln Asp Ser Cys | | 380 |
| 385 | 390 | 395 |
| Leu Gln Ser Leu Pro Asp Cys Gly Val Lys Gly Thr Glu Gly Leu Ser | | 400 |
| | 405 | 410 |
| Ser Cys Gly Asn Arg Asn Glu Glu Thr Gly Thr Lys Ser Ser Gly Met | | 415 |
| | 420 | 425 |
| Pro Thr Asp Gln Glu Ser Leu Ser Ser Gly Asp Ala Val Leu Gln Arg | | 430 |
| | 435 | 440 |
| Asp Leu Val Thr Glu Pro Gly Thr Ala Gln Tyr Ser Ser Gly Gly Glu | | 445 |
| | 450 | 455 |
| Leu Gly Gly Ile Ser Thr Thr Asn Val Ser Thr Pro Asp Thr Ala Gly | | 460 |
| 465 | 470 | 475 |
| Glu Met Glu His Gly Leu Met Asn Pro Asp Ala Thr Val Arg Lys Asn | | 480 |
| | 485 | 490 |
| Val Leu Gln Gly Gly Glu Ser Thr Lys Glu Arg Phe Glu Asn Ser Asn | | 495 |

| | | |
|---|-----|-----|
| 500 | 505 | 510 |
| Ile Gly Thr Ala Gly Ala Ser Asp Val His Val Thr Ser Lys Pro Val | | |
| 515 | 520 | 525 |
| Asp Lys Ile Ser Val Pro Asn Cys Ala Pro Ala Ala Ser Ser Leu Asp | | |
| 530 | 535 | 540 |
| Gly Asn Lys Pro Ala Glu Ser Ser Leu Ala Phe Ser Asn Glu Glu Thr | | |
| 545 | 550 | 555 |
| Ser Thr Glu Lys Thr Ala Glu Thr Glu Thr Ser Arg Ser Cys Glu Glu | | |
| 565 | 570 | 575 |
| Ser Ala Asp Ala Pro Val Asp Gln Asn Ser Val Val Ile Pro Ala Ala | | |
| 580 | 585 | 590 |
| Ala Lys Asp Lys Ile Ser Asp Gly Leu Glu Pro Tyr Thr Leu Leu Ala | | |
| 595 | 600 | 605 |
| Ala Gly Ile Gly Glu Ala Met Ser Pro Ser Asp Leu Ala Leu Leu Val | | |
| 610 | 615 | 620 |
| Leu Glu Glu Asp Val Met Pro His Gln Asn Ser Glu Thr Asn Ser Ser | | |
| 625 | 630 | 635 |
| His Ala Gln Ser Gln Lys Gly Lys Ser Ser Pro Ile Cys Ser Thr Thr | | |
| 645 | 650 | 655 |
| Gly Asp Asp Lys Leu Cys Ala Asp Ser Ala Cys Gln Gln Asn Thr Val | | |
| 660 | 665 | 670 |
| Thr Ser Ser Gly Asp Leu Val Ala Lys Leu Cys Asp Asn Ile Val Ser | | |
| 675 | 680 | 685 |
| Glu Ser Glu Ser Thr Thr Ala Arg Gln Pro Ser Ser Gln Asp Pro Pro | | |
| 690 | 695 | 700 |
| Asp Ala Ser His Cys Glu Asp Pro Gln Ala His Thr Val Thr Ser Asp | | |
| 705 | 710 | 715 |
| Pro Val Arg Asp Thr Gln Glu Arg Ala Asp Phe Cys Pro Phe Lys Val | | |
| 725 | 730 | 735 |
| Val Asp Asn Lys Gly Gln Arg Lys Asp Val Lys Leu Asp Lys Pro Leu | | |
| 740 | 745 | 750 |
| Thr Asn Met Leu Glu Val Val Ser His Pro His Pro Val Val Pro Lys | | |
| 755 | 760 | 765 |
| Met Glu Lys Glu Leu Val Pro Asp Gln Ala Val Ile Ser Asp Ser Thr | | |
| 770 | 775 | 780 |
| Phe Ser Leu Ala Asn Ser Pro Gly Ser Glu Ser Val Thr Lys Asp Asp | | |

| | | | |
|---|------|------|------|
| 785 | 790 | 795 | 800 |
| Ala Leu Ser Phe Val Pro Ser Gln Lys Glu Lys Gly Thr Ala Thr Pro | | | |
| | 805 | 810 | 815 |
| Glu Leu His Thr Ala Thr Asp Tyr Arg Asp Gly Pro Asp Gly Asn Ser | | | |
| | 820 | 825 | 830 |
| Asn Glu Pro Asp Thr Arg Pro Leu Glu Asp Arg Ala Ala Gly Leu Ser | | | |
| | 835 | 840 | 845 |
| Thr Ser Ser Thr Ala Ala Glu Leu Gln His Gly Met Gly Asn Thr Ser | | | |
| | 850 | 855 | 860 |
| Leu Thr Gly Leu Gly Gly Glu His Glu Gly Pro Ala Pro Pro Ala Ile | | | |
| 865 | 870 | 875 | 880 |
| Pro Glu Ala Leu Asn Ile Lys Gly Asn Thr Asp Ser Ser Leu Gln Ser | | | |
| | 885 | 890 | 895 |
| Met Gly Lys Ala Thr Leu Ala Leu Asp Ser Val Leu Thr Glu Glu Gly | | | |
| | 900 | 905 | 910 |
| Lys Leu Leu Val Val Ser Glu Ser Ser Ala Ala Gln Glu Gln Asp Lys | | | |
| | 915 | 920 | 925 |
| Asp Lys Ala Val Thr Cys Ser Ser Ile Lys Glu Asn Ala Leu Ser Ser | | | |
| | 930 | 935 | 940 |
| Gly Thr Leu Gln Glu Glu Gln Arg Thr Pro Pro Pro Gly Gln Asp Thr | | | |
| 945 | 950 | 955 | 960 |
| Gln Gln Phe His Glu Lys Ser Ile Ser Ala Asp Cys Ala Lys Asp Lys | | | |
| | 965 | 970 | 975 |
| Ala Leu Gln Leu Ser Asn Ser Pro Gly Ala Ser Ser Ala Phe Leu Lys | | | |
| | 980 | 985 | 990 |
| Ala Glu Thr Glu His Asn Lys Glu Val Ala Pro Gln Val Ser Leu Leu | | | |
| | 995 | 1000 | 1005 |
| Thr Gln Gly Gly Ala Ala Gln Ser Leu Val Pro Pro Gly Ala Ser Leu | | | |
| | 1010 | 1015 | 1020 |
| Ala Thr Glu Ser Arg Gln Glu Ala Leu Gly Ala Glu His Asn Ser Ser | | | |
| 1025 | 1030 | 1035 | 1040 |
| Ala Leu Leu Pro Cys Leu Leu Pro Asp Gly Ser Asp Gly Ser Asp Ala | | | |
| | 1045 | 1050 | 1055 |
| Leu Asn Cys Ser Gln Ala Ser Pro Leu Asp Val Gly Val Lys Asn Thr | | | |
| | 1060 | 1065 | 1070 |
| Gln Ser Gln Gly Lys Thr Ser Ala Cys Glu Val Ser Gly Asn Val Thr | | | |

| | | |
|---|------|------|
| 1075 | 1080 | 1085 |
| Val Asp Val Thr Gly Val Asn Ala Leu Gln Gly Met Ala Glu Pro Arg | | |
| 1090 | 1095 | 1100 |
| Arg Glu Asn Ile Ser His Asn Thr Gln Asp Ile Leu Ile Pro Asn Val | | |
| 1105 | 1110 | 1115 |
| Leu Leu Ser Gln Glu Lys Asn Ala Val Leu Gly Leu Pro Val Ala Leu | | |
| 1125 | 1130 | 1135 |
| Gln Asp Lys Ala Val Thr Asp Pro Gln Gly Val Gly Thr Pro Glu Met | | |
| 1140 | 1145 | 1150 |
| Ile Pro Leu Asp Trp Glu Lys Gly Lys Leu Glu Gly Ala Asp His Ser | | |
| 1155 | 1160 | 1165 |
| Cys Thr Met Gly Asp Ala Glu Glu Ala Gln Ile Asp Asp Glu Ala His | | |
| 1170 | 1175 | 1180 |
| Pro Val Leu Leu Gln Pro Val Ala Lys Glu Leu Pro Thr Asp Met Glu | | |
| 1185 | 1190 | 1195 |
| Leu Ser Ala His Asp Asp Gly Ala Pro Ala Gly Val Arg Glu Val Thr | | |
| 1205 | 1210 | 1215 |
| Arg Ala Pro Pro Ser Gly Arg Glu Arg Ser Thr Pro Ser Leu Pro Cys | | |
| 1220 | 1225 | 1230 |
| Met Val Ser Ala Gln Asp Ala Pro Leu Pro Lys Gly Ala Asp Leu Ile | | |
| 1235 | 1240 | 1245 |
| Glu Glu Ala Ala Ser Arg Ile Val Asp Ala Val Ile Glu Gln Val Lys | | |
| 1250 | 1255 | 1260 |
| Ala Ala Gly Ala Leu Leu Thr Glu Gly Glu Ala Cys His Met Ser Leu | | |
| 1265 | 1270 | 1275 |
| Ser Ser Pro Glu Leu Gly Pro Leu Thr Lys Gly Leu Glu Ser Ala Phe | | |
| 1285 | 1290 | 1295 |
| Thr Glu Lys Val Ser Thr Phe Pro Pro Gly Glu Ser Leu Pro Met Gly | | |
| 1300 | 1305 | 1310 |
| Ser Thr Pro Glu Glu Ala Thr Gly Ser Leu Ala Gly Cys Phe Ala Gly | | |
| 1315 | 1320 | 1325 |
| Arg Glu Glu Pro Glu Lys Ile Ile Leu Pro Val Gln Gly Pro Glu Pro | | |
| 1330 | 1335 | 1340 |
| Ala Ala Glu Met Pro Asp Val Lys Ala Glu Asp Glu Val Asp Phe Arg | | |
| 1345 | 1350 | 1355 |
| Ala Ser Ser Ile Ser Glu Glu Val Ala Val Gly Ser Ile Ala Ala Thr | | |

| | | |
|---|------|------|
| 1365 | 1370 | 1375 |
| Leu Lys Met Lys Gln Gly Pro Met Thr Gln Ala Ile Asn Arg Glu Asn | | |
| 1380 | 1385 | 1390 |
| Trp Cys Thr Ile Glu Pro Cys Pro Asp Ala Ala Ser Leu Leu Ala Ser | | |
| 1395 | 1400 | 1405 |
| Lys Gln Ser Pro Glu Cys Glu Asn Phe Leu Asp Val Gly Leu Gly Arg | | |
| 1410 | 1415 | 1420 |
| Glu Cys Thr Ser Lys Gln Gly Val Leu Lys Arg Glu Ser Gly Ser Asp | | |
| 1425 | 1430 | 1435 |
| Ser Asp Leu Phe His Ser Pro Ser Asp Asp Met Asp Ser Ile Ile Phe | | |
| 1445 | 1450 | 1455 |
| Pro Lys Pro Glu Glu Glu His Leu Ala Cys Asp Ile Thr Gly Ser Ser | | |
| 1460 | 1465 | 1470 |
| Ser Ser Thr Asp Asp Thr Ala Ser Leu Asp Arg His Ser Ser His Gly | | |
| 1475 | 1480 | 1485 |
| Ser Asp Val Ser Leu Ser Gln Ile Leu Lys Pro Asn Arg Ser Gly Asp | | |
| 1490 | 1495 | 1500 |
| Arg Gln Ser Leu Asp Gly Phe Tyr Ser His Gly Met Gly Ala Glu Gly | | |
| 1505 | 1510 | 1515 |
| Arg Glu Ser Glu Ser Glu Pro Ala Asp Pro Gly Asp Val Glu Glu Glu | | |
| 1525 | 1530 | 1535 |
| Glu Met Asp Ser Ile Thr Glu Val Pro Ala Asn Cys Ser Val Leu Arg | | |
| 1540 | 1545 | 1550 |
| Ser Ser Met Arg Ser Leu Ser Pro Phe Arg Arg His Ser Trp Gly Pro | | |
| 1555 | 1560 | 1565 |
| Gly Lys Asn Ala Ala Ser Asp Ala Glu Met Asn His Arg Ser Phe Ser | | |
| 1570 | 1575 | 1580 |
| Leu Glu Gly Leu Thr Gly Gly Ala Gly Val Gly Asn Lys Pro Ser Ser | | |
| 1585 | 1590 | 1595 |
| Ser Leu Glu Val Ser Ser Ala Asn Ala Glu Glu Leu Arg His Pro Phe | | |
| 1605 | 1610 | 1615 |
| Ser Gly Glu Glu Arg Val Asp Ser Leu Val Ser Leu Ser Glu Glu Asp | | |
| 1620 | 1625 | 1630 |
| Leu Glu Ser Asp Gln Arg Glu His Arg Met Phe Asp Gln Gln Ile Cys | | |
| 1635 | 1640 | 1645 |
| His Arg Ser Lys Gln Gln Gly Phe Asn Tyr Cys Thr Ser Ala Ile Ser | | |

1650 1655 1660
 Ser Pro Leu Thr Lys Ser Ile Ser Leu Met Thr Ile Ser His Pro Gly
 1665 1670 1675 1680
 Leu Asp Asn Ser Arg Pro Phe His Ser Thr Phe His Asn Thr Ser Ala
 1685 1690 1695
 Asn Leu Thr Glu Ser Ile Thr Glu Glu Asn Tyr Asn Phe Leu Pro His
 1700 1705 1710
 Ser Pro Ser Lys Lys Asp Ser Glu Trp Lys Ser Gly Thr Lys Val Ser
 1715 1720 1725
 Arg Thr Phe Ser Tyr Ile Lys Asn Lys Met Ser Ser Ser Lys Lys Ser
 1730 1735 1740
 Lys
 1745

<210> 3209

<211> 586

<212> PRT

<213> Homo sapiens

<400> 3209

Met Lys Tyr Ile Leu Val Thr Gly Gly Val Ile Ser Gly Ile Gly Lys
 1 5 10 15
 Gly Ile Ile Ala Ser Ser Ile Gly Thr Ile Leu Lys Ser Cys Gly Leu
 20 25 30
 Arg Val Thr Ala Ile Lys Ile Asp Pro Tyr Ile Asn Ile Asp Ala Gly
 35 40 45
 Thr Phe Ser Pro Tyr Glu His Gly Glu Val Phe Val Leu Asn Asp Gly
 50 55 60
 Gly Glu Val Asp Leu Asp Leu Gly Asn Tyr Glu Arg Phe Leu Asp Ile
 65 70 75 80
 Asn Leu Tyr Lys Asp Asn Asn Ile Thr Thr Gly Lys Ile Tyr Gln His
 85 90 95
 Val Ile Asn Lys Glu Arg Arg Gly Asp Tyr Leu Gly Lys Thr Val Gln
 100 105 110
 Val Val Pro His Ile Thr Asp Ala Val Gln Glu Trp Val Met Asn Gln

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Ala Lys Val Pro Val Asp Gly Asn Lys Glu Glu Pro Gln Ile Cys Val | | |
| 130 | 135 | 140 |
| Ile Glu Leu Gly Gly Thr Ile Gly Asp Ile Glu Gly Met Pro Phe Val | | |
| 145 | 150 | 155 |
| Glu Ala Phe Arg Gln Phe Gln Phe Lys Ala Lys Arg Glu Asn Phe Cys | | |
| 165 | 170 | 175 |
| Asn Ile His Val Ser Leu Val Pro Gln Leu Ser Ala Thr Gly Glu Gln | | |
| 180 | 185 | 190 |
| Lys Thr Lys Pro Thr Gln Asn Ser Val Arg Ala Leu Arg Gly Leu Gly | | |
| 195 | 200 | 205 |
| Leu Ser Pro Asp Leu Ile Val Cys Arg Ser Ser Thr Pro Ile Glu Met | | |
| 210 | 215 | 220 |
| Ala Val Lys Glu Lys Ile Ser Met Phe Cys His Val Asn Pro Glu Gln | | |
| 225 | 230 | 235 |
| Val Ile Cys Ile His Asp Val Ser Ser Thr Tyr Arg Val Pro Val Leu | | |
| 245 | 250 | 255 |
| Leu Glu Glu Gln Ser Ile Val Lys Tyr Phe Lys Glu Arg Leu His Leu | | |
| 260 | 265 | 270 |
| Pro Ile Gly Asp Ser Ala Ser Asn Leu Leu Phe Lys Trp Arg Asn Met | | |
| 275 | 280 | 285 |
| Ala Asp Arg Tyr Glu Arg Leu Gln Lys Ile Cys Ser Ile Ala Leu Val | | |
| 290 | 295 | 300 |
| Gly Lys Tyr Thr Lys Leu Arg Asp Cys Tyr Ala Ser Val Phe Lys Ala | | |
| 305 | 310 | 315 |
| Leu Glu His Ser Ala Leu Ala Ile Asn His Lys Leu Asn Leu Met Tyr | | |
| 325 | 330 | 335 |
| Ile Asp Ser Ile Asp Leu Glu Lys Ile Thr Glu Thr Glu Asp Pro Val | | |
| 340 | 345 | 350 |
| Lys Phe His Glu Ala Trp Gln Lys Leu Cys Lys Ala Asp Gly Ile Leu | | |
| 355 | 360 | 365 |
| Val Pro Gly Gly Phe Gly Ile Arg Gly Thr Leu Gly Lys Leu Gln Ala | | |
| 370 | 375 | 380 |
| Ile Ser Trp Ala Arg Thr Lys Lys Ile Pro Phe Leu Gly Val Cys Leu | | |
| 385 | 390 | 395 |
| Gly Met Gln Leu Ala Val Ile Glu Phe Ala Arg Asn Cys Leu Asn Leu | | 400 |

405 410 415
 Lys Asp Ala Asp Ser Thr Glu Phe Arg Pro Asn Ala Pro Val Pro Leu
 420 425 430
 Val Ile Asp Met Pro Glu His Asn Pro Gly Asn Leu Gly Gly Thr Met
 435 440 445
 Arg Leu Gly Ile Arg Arg Thr Val Phe Lys Thr Glu Asn Ser Ile Leu
 450 455 460
 Arg Lys Leu Tyr Gly Asp Val Pro Phe Ile Glu Glu Arg His Arg His
 465 470 475 480
 Arg Phe Glu Val Asn Pro Asn Leu Ile Lys Gln Phe Glu Gln Asn Asp
 485 490 495
 Leu Ser Phe Val Gly Gln Asp Val Asp Gly Asp Arg Met Glu Ile Ile
 500 505 510
 Glu Leu Ala Asn His Pro Tyr Phe Val Gly Val Gln Phe His Pro Glu
 515 520 525
 Phe Ser Ser Arg Pro Met Lys Pro Ser Pro Pro Tyr Leu Gly Leu Leu
 530 535 540
 Leu Ala Ala Thr Gly Asn Leu Asn Ala Tyr Leu Gln Gln Gly Cys Lys
 545 550 555 560
 Leu Ser Ser Ser Asp Arg Tyr Ser Asp Ala Ser Asp Asp Ser Phe Ser
 565 570 575
 Glu Pro Arg Ile Ala Glu Leu Glu Ile Ser
 580 585

<210> 3210

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3210

Met Ala Arg Val His Ile Trp Pro Gln His Thr Ala Val Asn Pro Arg
 1 5 10 15
 Leu Leu Glu Asn Gln Ala Arg Ala Met Ile His His His Leu Met Ala
 20 25 30
 Ala Thr Pro Ala Val Phe Leu Val Ser Ser Gly Pro Asp Gly Ser Gln

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      35              40              45
Ala Lys Ala Ala Ala Ser Tyr Leu Ala Glu Pro Pro Gly Ser Pro
      50              55              60
Thr Pro Gly Pro Phe Ser Tyr Thr Lys Ala Ser Val Val Leu Phe Leu
      65              70              75              80
Pro Asn Pro Arg Pro Asn Ile Phe Lys Leu His Ser Lys Glu Gln Leu
              85              90              95
Ala Glu Cys His Gln Tyr Leu Gln Ser Asn Met Arg Trp Asp Phe Ser
              100              105              110
Phe Ala Ile Lys Thr Arg Met Leu Phe Leu Pro Cys Ser Asp Asn Val
              115              120              125

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<210> 3211

<211> 757

<212> PRT

<213> Homo sapiens

<400> 3211

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Met Gln Lys Ser Leu Arg Pro Ile Gly Leu Leu Arg Ala Gln Ser Leu
  1              5              10              15
Glu Trp Phe Tyr Asn Asn Val Lys Ser Arg Phe Glu Arg Phe Gly Ser
              20              25              30
Ala Lys Val Leu Lys Asn Leu Tyr Arg Lys His Arg Leu Glu Ser Gly
              35              40              45
Ala Cys Phe Asp Ile Leu Gly Gly Ser Leu Phe Glu Ser Asn Leu Glu
              50              55              60
Asn Glu Gly Ser Ile Ser Gly Ser Asp Ser Thr Phe Tyr Arg Gln Ser
      65              70              75              80
Glu Gly His Ser Val Met Asp Thr Leu Ala Val Ala Leu Arg Val Ala
              85              90              95
Glu Glu Ala Ile Glu Glu Ala Ile Ser Lys Ala Glu Ala Tyr Gly Asp
              100              105              110
Ser Leu Asp Lys Gln Asn Glu Ala Ser Tyr Leu Arg Asp His Lys Glu
              115              120              125
Glu Leu Thr Glu Glu Leu Ala Thr Thr Ile Leu Gln Lys Ile Ile Arg

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| | | | |
|---|-----|-----|-----|
| 130 | 135 | 140 | |
| Lys Gln Lys Ser Lys Ser Glu Gln Gln Val Glu Glu Glu Pro Gly Trp | | | |
| 145 | 150 | 155 | 160 |
| Pro His Pro Gln Ser Cys Ser Thr Lys Val Ala Asp Glu Gly Thr Ser | | | |
| | 165 | 170 | 175 |
| Ala Ser Pro Gly Gly Tyr Arg Ala Pro Ala Ala Leu Trp Arg Ser Gln | | | |
| | 180 | 185 | 190 |
| Ser Ala Phe Ser Ile Thr Gly Glu Glu Ala Leu Lys Thr Pro Pro Val | | | |
| | 195 | 200 | 205 |
| Glu Ala Pro Ser Arg Gln Pro Arg Asp Gln Gly Gln His Pro Arg Ala | | | |
| | 210 | 215 | 220 |
| Glu Ser Ala Leu Pro Ser Trp Lys Ser Val Asp Arg Leu Asp Glu Thr | | | |
| | 225 | 230 | 235 |
| Asn Leu Ala Pro Val Leu Gln Ser Pro Asp Gly Asn Trp Val Ala Leu | | | |
| | 245 | 250 | 255 |
| Lys Asp Gly Ala Pro Pro Pro Thr Arg Leu Leu Ala Lys Pro Lys Ser | | | |
| | 260 | 265 | 270 |
| Gly Thr Phe Gln Ala Leu Glu Val Ala Ser Ser Val Ala Ser Ala Tyr | | | |
| | 275 | 280 | 285 |
| Asp Glu Met Gly Ser Asp Ser Glu Glu Asp Phe Asp Trp Ser Glu Ala | | | |
| | 290 | 295 | 300 |
| Leu Ser Lys Leu Cys Pro Arg Ser Arg Ala Leu Pro Arg Asn Pro Gln | | | |
| | 305 | 310 | 315 |
| Pro Gln Pro Thr Gln Ala Gln Ser Ser Asp Gln Gly Pro Ile Ala Ala | | | |
| | 325 | 330 | 335 |
| Ser Pro Ser Ser Ala Leu Ser Pro Asn Pro Glu Ala Met Cys Ser Asp | | | |
| | 340 | 345 | 350 |
| Ser Glu Thr Ser Ser Ala Gly Ser Ser Arg Glu Val Gly His Gln Ala | | | |
| | 355 | 360 | 365 |
| Arg Leu Ser Trp Leu Gln Arg Lys Ala Pro Arg Asn Pro Ala Ala Glu | | | |
| | 370 | 375 | 380 |
| Lys Met Arg Leu His Gly Glu Leu Asp Val Asn Phe Asn Pro Gln Leu | | | |
| | 385 | 390 | 395 |
| Ala Ser Arg Glu Thr Ser Asp Ser Ser Glu Pro Glu Glu Ala Pro His | | | |
| | 405 | 410 | 415 |
| Thr Thr Asp Arg Arg Ala Arg Arg Trp Arg Arg Ala Arg Leu Gly Ser | | | |

| | | |
|---|-----|-----|
| 420 | 425 | 430 |
| Glu Glu Pro Ser Lys Glu Pro Ser Ser Pro Ser Ala Gln Leu Arg Asp | | |
| 435 | 440 | 445 |
| Leu Asp Thr His Gln Val Ser Asp Asp Leu Ser Glu Thr Asp Ile Ser | | |
| 450 | 455 | 460 |
| Asn Glu Ala Arg Asp Pro Gln Thr Leu Thr Asp Thr Thr Glu Glu Lys | | |
| 465 | 470 | 475 |
| Arg Arg Asn Arg Leu Tyr Glu Leu Ala Met Lys Met Ser Glu Lys Glu | | |
| 485 | 490 | 495 |
| Thr Ser Ser Gly Glu Asp Gln Glu Ser Glu Pro Lys Thr Glu Ser Glu | | |
| 500 | 505 | 510 |
| Asn Gln Lys Glu Ser Leu Ser Ser Glu Asp Asn Ser Gln Ser Val Gln | | |
| 515 | 520 | 525 |
| Glu Glu Leu Lys Lys Lys Phe Ser Ala Val Ser Leu Cys Asn Ile Ser | | |
| 530 | 535 | 540 |
| Thr Glu Val Leu Lys Val Ile Asn Ala Thr Glu Glu Leu Ile Ala Gly | | |
| 545 | 550 | 555 |
| Ser Thr Gly Pro Trp Glu Ser Pro Gln Val Pro Pro Asp Arg Gln Lys | | |
| 565 | 570 | 575 |
| Gly Met Phe Pro Arg Gly Thr Asp Gln Val Arg Leu Asp Glu Gln Leu | | |
| 580 | 585 | 590 |
| Thr Ser Leu Glu Glu Asn Val Tyr Leu Ala Ala Gly Thr Val Tyr Gly | | |
| 595 | 600 | 605 |
| Leu Glu Thr Gln Leu Thr Glu Leu Glu Asp Ala Ala Arg Cys Ile His | | |
| 610 | 615 | 620 |
| Ser Gly Thr Asp Glu Thr His Leu Ala Asp Leu Glu Asp Gln Val Ala | | |
| 625 | 630 | 635 |
| Thr Ala Ala Ala Gln Val His His Ala Glu Leu Gln Ile Ser Asp Ile | | |
| 645 | 650 | 655 |
| Glu Ser Arg Ile Ser Ala Leu Thr Ile Ala Gly Leu Asn Ile Ala Pro | | |
| 660 | 665 | 670 |
| Cys Val Arg Phe Thr Arg Arg Arg Asp Gln Lys Gln Arg Thr Gln Val | | |
| 675 | 680 | 685 |
| Gln Thr Ile Asp Thr Ser Arg Gln Gln Arg Arg Lys Leu Pro Ala Pro | | |
| 690 | 695 | 700 |
| Pro Val Lys Ala Glu Lys Ile Glu Thr Ser Ser Val Thr Thr Ile Lys | | |

705 710 715 720
 Thr Phe Asn His Asn Phe Ile Leu Gln Gly Ser Ser Thr Asn Arg Thr
 725 730 735
 Lys Glu Arg Lys Gly Thr Thr Lys Asp Leu Met Glu Pro Ala Leu Glu
 740 745 750
 Ser Ala Val Met Tyr
 755

<210> 3212

<211> 714

<212> PRT

<213> Homo sapiens

<400> 3212

Met Leu His Leu Lys Val Gln Phe Leu Asp Asp Ser Gln Lys Ile Phe
 1 5 10 15
 Val Val Asp Gln Lys Ser Ser Gly Lys Ala Leu Phe Asn Leu Ser Cys
 20 25 30
 Ser His Leu Asn Leu Ala Glu Lys Glu Tyr Phe Gly Leu Glu Phe Cys
 35 40 45
 Ser His Ser Gly Asn Asn Val Trp Leu Glu Leu Leu Lys Pro Ile Thr
 50 55 60
 Lys Gln Val Lys Asn Pro Lys Glu Ile Val Phe Lys Phe Met Val Lys
 65 70 75 80
 Phe Phe Pro Val Asp Pro Gly His Leu Arg Glu Glu Leu Thr Arg Tyr
 85 90 95
 Leu Phe Thr Leu Gln Ile Lys Lys Asp Leu Ala Leu Gly Arg Leu Pro
 100 105 110
 Cys Ser Asp Asn Cys Thr Ala Leu Met Val Ser His Ile Leu Gln Ser
 115 120 125
 Glu Leu Gly Asp Phe His Glu Glu Thr Asp Arg Lys His Leu Ala Gln
 130 135 140
 Thr Arg Tyr Leu Pro Asn Gln Asp Cys Leu Glu Gly Lys Ile Met His
 145 150 155 160
 Phe His Gln Lys His Ile Gly Arg Ser Pro Ala Glu Ser Asp Ile Leu

| | | |
|---|-----|-----|
| 165 | 170 | 175 |
| Leu Leu Asp Ile Ala Arg Lys Leu Asp Met Tyr Gly Ile Arg Pro His | | |
| 180 | 185 | 190 |
| Pro Ala Ser Asp Gly Glu Gly Met Gln Ile His Leu Ala Val Ala His | | |
| 195 | 200 | 205 |
| Met Gly Val Leu Val Leu Arg Gly Asn Thr Lys Ile Asn Thr Phe Asn | | |
| 210 | 215 | 220 |
| Trp Ala Lys Ile Arg Lys Leu Ser Phe Lys Arg Lys His Phe Leu Ile | | |
| 225 | 230 | 235 |
| Lys Leu His Ala Asn Ile Leu Val Leu Cys Lys Asp Thr Leu Glu Phe | | |
| 245 | 250 | 255 |
| Thr Met Ala Ser Arg Asp Ala Cys Lys Ala Phe Trp Lys Thr Cys Val | | |
| 260 | 265 | 270 |
| Glu Tyr His Ala Phe Phe Arg Leu Ser Glu Glu Pro Lys Ser Lys Pro | | |
| 275 | 280 | 285 |
| Lys Thr Leu Leu Cys Ser Lys Gly Ser Ser Phe Arg Tyr Ser Gly Arg | | |
| 290 | 295 | 300 |
| Thr Gln Arg Gln Leu Leu Glu Tyr Gly Arg Lys Gly Arg Leu Lys Ser | | |
| 305 | 310 | 315 |
| Leu Pro Phe Glu Arg Lys His Tyr Pro Ser Gln Tyr His Glu Arg Gln | | |
| 325 | 330 | 335 |
| Cys Arg Ser Ser Pro Asp Leu Leu Ser Asp Val Ser Lys Gln Val Glu | | |
| 340 | 345 | 350 |
| Asp Leu Arg Leu Ala Tyr Gly Gly Gly Tyr Tyr Gln Asn Val Asn Gly | | |
| 355 | 360 | 365 |
| Val His Ala Ser Glu Pro Val Leu Glu Ser Arg Arg Arg Asn Ser Ala | | |
| 370 | 375 | 380 |
| Leu Glu Val Thr Phe Ala Thr Glu Leu Glu His Ser Lys Pro Glu Ala | | |
| 385 | 390 | 395 |
| Asp Pro Thr Leu Leu His Gln Ser Gln Ser Ser Ser Phe Pro Phe | | |
| 405 | 410 | 415 |
| Ile Tyr Met Asp Pro Val Phe Asn Thr Glu Pro Asn Pro Asn Pro Asp | | |
| 420 | 425 | 430 |
| Pro Arg Asp Ile Phe Ser Glu Arg Ser Ser Leu Ser Ser Phe Gln Thr | | |
| 435 | 440 | 445 |
| Ser Cys Lys Phe Ser Gly Asn His Met Ser Ile Tyr Ser Gly Leu Thr | | |

450 455 460
 Ser Lys Val Arg Pro Ala Lys Gln Leu Thr Tyr Thr Asp Val Pro Tyr
 465 470 475 480
 Ile Pro Cys Thr Gly Gln Gln Val Gly Ile Met Pro Pro Gln Val Phe
 485 490 495
 Phe Tyr Val Asp Lys Pro Pro Gln Val Pro Arg Trp Ser Pro Ile Arg
 500 505 510
 Ala Glu Glu Arg Thr Ser Pro His Ser Tyr Val Glu Pro Thr Ala Met
 515 520 525
 Lys Pro Ala Glu Arg Ser Pro Arg Asn Ile Arg Met Lys Ser Phe Gln
 530 535 540
 Gln Asp Leu Gln Val Leu Gln Glu Ala Ile Ala Arg Thr Ser Gly Arg
 545 550 555 560
 Ser Asn Ile Asn Val Gly Leu Glu Glu Glu Asp Pro Asn Leu Glu Asp
 565 570 575
 Ala Phe Val Cys Asn Ile Gln Glu Gln Thr Pro Lys Arg Ser Gln Ser
 580 585 590
 Gln Ser Asp Met Lys Thr Ile Arg Phe Pro Phe Gly Ser Glu Phe Arg
 595 600 605
 Pro Leu Gly Pro Cys Pro Ala Leu Ser His Lys Ala Asp Leu Phe Thr
 610 615 620
 Asp Met Phe Ala Glu Gln Glu Leu Pro Ala Val Leu Met Asp Gln Ser
 625 630 635 640
 Thr Ala Glu Arg Tyr Val Ala Ser Glu Ser Ser Asp Ser Glu Ser Glu
 645 650 655
 Ile Leu Lys Pro Asp Tyr Tyr Ala Leu Tyr Gly Lys Glu Ile Arg Ser
 660 665 670
 Pro Met Ala Arg Ile Arg Leu Ser Ser Gly Ser Leu Gln Leu Asp Glu
 675 680 685
 Glu Asp Glu Asp Ala Tyr Phe Asn Thr Pro Thr Ala Glu Asp Arg Thr
 690 695 700
 Ser Leu Lys Pro Cys Asn Tyr Phe Leu Ala
 705 710

<211> 393

<212> PRT

<213> Homo sapiens

<400> 3213

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Met Glu Gln Cys Ala Cys Val Glu Arg Glu Leu Asp Lys Val Leu Gln
  1              5              10              15
Lys Phe Leu Thr Tyr Gly Gln His Cys Glu Arg Ser Leu Glu Glu Leu
      20              25              30
Leu His Tyr Val Gly Gln Leu Arg Ala Glu Leu Ala Ser Ala Ala Leu
      35              40              45
Gln Gly Thr Pro Leu Ser Ala Thr Leu Ser Leu Val Met Ser Gln Cys
      50              55              60
Cys Arg Lys Ile Lys Asp Thr Val Gln Lys Leu Ala Ser Asp His Lys
      65              70              75              80
Asp Ile His Ser Ser Val Ser Arg Val Gly Lys Ala Ile Asp Arg Asn
      85              90              95
Phe Asp Ser Glu Ile Cys Gly Val Val Ser Asp Ala Val Trp Asp Ala
      100             105             110
Arg Glu Gln Gln Gln Gln Ile Leu Gln Met Ala Ile Val Glu His Leu
      115             120             125
Tyr Gln Gln Gly Met Leu Ser Val Ala Glu Glu Leu Cys Gln Glu Ser
      130             135             140
Thr Leu Asn Val Asp Leu Asp Phe Lys Gln Pro Phe Leu Glu Leu Asn
      145             150             155             160
Arg Ile Leu Glu Ala Leu His Glu Gln Asp Leu Gly Pro Ala Leu Glu
      165             170             175
Trp Ala Val Ser His Arg Gln Arg Leu Leu Glu Leu Asn Ser Ser Leu
      180             185             190
Glu Phe Lys Leu His Arg Leu His Phe Ile Arg Leu Leu Ala Gly Gly
      195             200             205
Pro Ala Lys Gln Leu Glu Ala Leu Ser Tyr Ala Arg His Phe Gln Pro
      210             215             220
Phe Ala Arg Leu His Gln Arg Glu Ile Gln Val Met Met Gly Ser Leu
      225             230             235             240
Val Tyr Leu Arg Leu Gly Leu Glu Lys Ser Pro Tyr Cys His Leu Leu

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245 250 255
 Asp Ser Ser His Trp Ala Glu Ile Cys Glu Thr Phe Thr Arg Asp Ala
 260 265 270
 Cys Ser Leu Leu Gly Leu Ser Val Glu Ser Pro Leu Ser Val Ser Phe
 275 280 285
 Ala Ser Gly Cys Val Ala Leu Pro Val Leu Met Asn Ile Lys Ala Val
 290 295 300
 Ile Glu Gln Arg Gln Cys Thr Gly Val Trp Asn His Lys Asp Glu Leu
 305 310 315 320
 Pro Ile Glu Ile Glu Leu Gly Met Lys Cys Trp Tyr His Ser Val Phe
 325 330 335
 Ala Cys Pro Ile Leu Arg Gln Gln Thr Ser Asp Ser Asn Pro Pro Ile
 340 345 350
 Lys Leu Ile Cys Gly His Val Ile Ser Arg Asp Ala Leu Asn Lys Leu
 355 360 365
 Ile Asn Gly Gly Lys Leu Lys Cys Pro Tyr Cys Pro Met Glu Gln Asn
 370 375 380
 Pro Ala Asp Gly Lys Arg Ile Ile Phe
 385 390

<210> 3214

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3214

Met Thr Gly Phe Lys Ala Ser Lys Asn Arg Val Thr Leu Leu Ser Asp
 1 5 10 15
 Thr Asn Thr Ala Ala Asp Leu Lys Leu Lys Pro Val Leu Thr Ala His
 20 25 30
 Ser Glu Asn Leu Arg Ile Leu Lys Asn Cys Ala Lys Ser Thr Val Pro
 35 40 45
 Met Cys Asn Lys Ala Leu Met Ala Ala Cys Leu Phe Thr Ile Ser Phe
 50 55 60
 Thr Glu Tyr Leu Lys Pro Thr Thr Glu Asn Tyr Cys Ser Gly Lys Lys

65 70 75 80
 Ile Leu Phe Lys Ile Val Leu Leu Phe Asp Asn Gly Pro Gly His Pro
 85 90 95
 Arg Ala Leu Met Glu Val Cys Lys Glu Met Asn Ala Val Phe Met Pro
 100 105 110
 Ala Asn Thr Thr Pro Val Leu Tyr Ser Met Asp His Arg Val Ile Leu
 115 120 125
 Thr Phe Lys Ser Tyr Tyr Leu Arg Asn Lys Phe Cys Lys Ala Ile Ala
 130 135 140
 Ala Thr His Ser Tyr Ser Cys Asp Gly Ser Gly Gln Ser Lys Leu Lys
 145 150 155 160
 Thr

<210> 3215

<211> 352

<212> PRT

<213> Homo sapiens

<400> 3215

Met Asn Thr Ile Val Phe Asn Lys Leu Ser Gly Ala Val Leu Phe Glu
 1 5 10 15
 Asp Gly Gly Ala Ser Glu Arg Glu Arg Gly Gly Arg Pro Tyr Ser Gly
 20 25 30
 Val Leu Asp Ser Pro His Ala Arg Pro Glu Val Gly Ile Pro Asp Gly
 35 40 45
 Pro Pro Leu Lys Asp Asn Leu Gly Leu Arg His Arg Arg Thr Gly Ala
 50 55 60
 Arg Gln Asn Gly Gly Lys Val Arg His Lys Arg Gln Ala Leu Gln Asp
 65 70 75 80
 Met Ala Arg Pro Leu Lys Gln Trp Leu Tyr Lys His Arg Asp Asn Pro
 85 90 95
 Tyr Pro Thr Lys Thr Glu Lys Ile Leu Leu Ala Leu Gly Ser Gln Met
 100 105 110
 Thr Leu Val Gln Val Ser Asn Trp Phe Ala Asn Ala Arg Arg Arg Leu

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Lys Asn Thr Val Arg Gln Pro Asp Leu Ser Trp Ala Leu Arg Ile Lys | | |
| 130 | 135 | 140 |
| Leu Tyr Asn Lys Tyr Val Gln Gly Asn Ala Glu Arg Leu Ser Val Ser | | |
| 145 | 150 | 155 |
| Ser Asp Asp Ser Cys Ser Glu Asp Gly Glu Asn Pro Pro Arg Thr His | | |
| 165 | 170 | 175 |
| Met Asn Glu Gly Gly Tyr Asn Thr Pro Val His His Pro Val Ile Lys | | |
| 180 | 185 | 190 |
| Ser Glu Asn Ser Val Ile Lys Ala Gly Val Arg Pro Glu Ser Arg Ala | | |
| 195 | 200 | 205 |
| Ser Glu Asp Tyr Val Ala Pro Pro Lys Tyr Lys Ser Ser Leu Leu Asn | | |
| 210 | 215 | 220 |
| Arg Tyr Leu Asn Asp Ser Leu Arg His Val Met Ala Thr Asn Thr Thr | | |
| 225 | 230 | 235 |
| Met Met Gly Lys Thr Arg Gln Arg Asn His Ser Gly Ser Phe Ser Ser | | |
| 245 | 250 | 255 |
| Asn Glu Phe Glu Glu Glu Leu Val Ser Pro Ser Ser Ser Glu Thr Glu | | |
| 260 | 265 | 270 |
| Gly Asn Phe Val Tyr Arg Thr Asp Thr Leu Glu Asn Gly Ser Asn Lys | | |
| 275 | 280 | 285 |
| Gly Glu Ser Ala Ala Asn Arg Lys Gly Pro Ser Lys Asp Asp Thr Tyr | | |
| 290 | 295 | 300 |
| Trp Lys Glu Ile Asn Ala Ala Met Ala Leu Thr Asn Leu Ala Gln Gly | | |
| 305 | 310 | 315 |
| Lys Asp Lys Leu Gln Gly Thr Thr Ser Cys Ile Ile Gln Lys Ser Ser | | |
| 325 | 330 | 335 |
| His Ile Ala Glu Val Lys Thr Val Lys Val Pro Leu Val Gln Gln Phe | | |
| 340 | 345 | 350 |

<210> 3216

<211> 1284

<212> PRT

<213> Homo sapiens